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MAGAZINE INDEX 1986/1996

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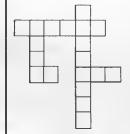
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The British Amstrad PCW Club

"Four Winds", 10 Sheridan Avenue, Thundersley, Essex SS7 1RD Tele: 01702 551618

We're back!

At long last we're back in business... many months behind schedule but none the worse for wear.

The PCW market seems to have stagnated while we were gone, so it's our aim to give things a bit of a boost.

But first I must thank you, the readers, who have almost all been wonderfully understanding. Thankyou for that - I appreciate it.

During our hibernation, there have been some major changes in the way *PCW Today* looks and works.

Cosmetically, we now look very different, and I hope you like the new design.

But that's not all that's changed. For starters the cover disc - now renamed Super Disc - will be sent in a separate mailing. Disc and magazine subscriptions will no longer be connected. Check page five for more details

Meanwhile, you may remember I have been on the move recently and I am now based in Galloway, Scotland. However the magazine will continue to be run from the original Middlesbrough address. You can contact me directly at any time on the mobile number printed below.

PCW TODAY

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PUBLISHED BY Strad Publishing

PCW Today is an independent magazine, published quarterly.

PCW Today does not have links with any commercial organisation. We do not act as an agent for nor are we associated to Amstrad plc or its associated companies.

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PCW Today is a non-profit making club.

contents

what's in the all-new pcw today

first look

ISSUE THIRTEEN

News

Brand new PCW to PC conversion program, Sugar knighted, and more.

Another fine selection of letters from our bulging mailbag.

∩ Interview

We talk to Howard Fisher, the former boss of LocoScript Software about selling-up.

PcW 16
We put the new CP/M emulator through some rigourous tests.

Club News

A round-up of news from PCW clubs around the world.

The Classifieds
Pick up a bargain in the biggest Amstrad small-ad section you'll find anywhere.

1 ∩ Mr Fix-it

John King starts this new series on how to repair your aging Amstrad.

PCW World

New LocoScript boss Steve Denson
ponders on what the new century holds.

1 Internet

Our team of top experts tell you everything you need to no about getting netted.

Programming
Fred Manders guides shows how to write a Mastermind game in Logo.

↑ ∩ Review

We take a look at a brand new guide to LocoScript 4 by Dorothy Featherstone.

Jargon Buster
Kathleen Thorpe asks just what exactly

does user friendly mean?

1 Review

SD MicroSystems have launched a new database designed for ALL PCWS!

PcW 16
A great conversion table for those people switching between Loco and the 16.

1 CP/M Basics

Kathleen Thorpe continues her detailed look at the PCW operating system.

Directory
A comprehensive list of all the PCW companies and the services they provide.

PCW Awards

Find out who won what in this year's Joyces, the PCW equivalent of the Oscars.

Changford
He always gets the

He always gets the last word! This time he's trying to beat the progamming bug.

IMPORTANT NEWS FOR COVER DISC SUBSCRIBERS!

SUPER DISC

SuperDiscs are the new-look successor to the *PCW Today* cover disc. The discs will no longer be mailed with the magazine, although they will be issued soon after the publication of every edition.

The discs still contain the usual mix of software, clipart and fonts, and still represent excellent value for money at £2 each or £8 for four. Current cover disc subscribers will receive their first **SuperDisc** very scon.

And watch out because we are planning to give away the full version of Protext, worth £25, no strings attached, on a future SuperDisc!

all the latest from the pcw world

Headlines

New file transfer package launched

Ansible Information have just launched a brand new data transfer program that will allow swift conversions from PCW to PC format.

The package which goes head to head with established names like LocoLink is being promoted as the "cheap and simple" way to transfer documents.

Ailink works with Windows 95, 98 and NT, and comes with Ansible's excellent disc reader for CP/M discs.

This program copies files from LocoScript discs onto your PC's hard drive. Once there the main Ailink program comes into play.

The software will cleverly convert any LocoScript document into an MS Rich

Text File which can then be edited by most of the major PC word processors including Word, Lotus Word Pro and Word Perfect.

All type styles like bold, underline and italic are preserved in the conversion, as are most accented characters. And every version of LocoScript from 1 through to 4 is supported.

As well as converting to RTF, there are options to convert the text to HTML as used in web pages, ASCII and more.

Meanwhile Ailink keeps a running log of files converted, and this can be cut and pasted into the a word processor and printed out. The package also includes a comprehensive help file. Ailink comes from the keyboard of our very own David Langford. He said: "Ailink is the simple and cheap solution for a common problem. It is a powerful but easy to use application which makes it as easy as possible to convert the LocoScript documents."

While users of 3.5" PCWs are sure to love Ailink, those people wanting to transfer 3" discs will still need to find one of the increasingly rare LocoLink cables or employ a data transfer company.

Ailink for Windows can be purchased from Ansible Information, 94 London Road, Reading, Berkshire RG1 5AU.

It is competitively priced at £19.50 all inclusive

Arise Sir Al - Amstrad boss gets a knightood

Arnstrad supremo Alan Sugar was awarded a knighthood in the New Year Honours List.

The man who famously invented the PCW and named it after his secretary Joyce, picked up the title in January at Buckingham Palace.

Afterwards he said: "I'm tickled pink."

Sir Alan, who always speaks his mind, and never shies away from using ripe language, was seen by some as an unlikely candidate for the honour.

However in recent years, Sugar has

worked with Britain's youth on a government project to encourage young enterprise.

The controversial tycoon was asked by Tony Blair to tour the nation's schools to lecture youngsters on how to succeed in business. This work will have won Sugar several Brownie points in the corridors of power.

Sir Alan himself went from aged 18, selling car aerials out of the back of a clapped-out van, to selling computers in a multi-million pound business by the time he reached 40.

He was born and bred in Hackney and never forgets his roots, although he is now worth an estimated £270m.

After the 12-town tour, Sugar said what he had seen was very encouraging, but he said kids had to be "clobbered" into understanding about their financial futures: "There is their world and the real world. Their world means being supported by Mummy and Daddy. The real world is where you need a salary.

"My mission is to wake youngsters up before it's too late and they have mortgages around their necks."

4 • PCW Today • Issue 13

news

all the latest from the pcw world

SD Micro slash software prices

THE price of many top PCW software packages has been slashed by SD MicroSystems, the new owners of the LocoScript brand.

The adjustments have been made by SD Micro boss Steve Denson, who recently bought out LocoScript Software, which went into liquidation several months ago.

He said the changes were 'realistic' and hoped they would encourage more users to upgrade.

The most dramatic price cuts include £20 off the RRP of LocoFile, LocoMail and LocoSpell, which all now retail at £19.95 - down from £29.95. And if bought with LocoScript 4, the price drops even further to just £10.

The flagship LocoScript 4 word processor itself is down from £39.95 to £29.95, and MicroDesign 3 has been slashed to £29.95.

And RoutePlanner, one of the newest blockbusters on LocoScript's books now only costs £19.95 - down from £29.95.

The cost of LocoScript Printer Support Packs and Fonts has also been cut substantially. Steve Denson told *PCW Today:* "We wanted to reposition the products into a more realistic position, taking into account the market at present. I think we've now added more value for money, and it should encourage people to upgrade who would previously have been put off by the high price.

"People are now getting a bit of a bargain, because all of this software is of very high quality."

Meanwhile business at SD Micro-Systems is booming, with the firm taking up to 250 calls a week from new customers

Steve said: "The last quarter of 1999 certainly flew by and I'm delighted the faith we place in LocoScript and PCW users when we bought all the stock and licenses has been fully justified."

The take-over has not been entirely smooth however. Steve revealed: "BT almost destroyed the whole venture before we even got going by messing up the redirection of the old Dorking phone lines to Thetford. Had we not sorted that out we'd have lost contact with our core customers and the plan would then have flopped."

New boss says 'no' to producing LocoScript 5

THE new man in charge of the LocoScript empire says he will not be developing a fifth version of the famous word processor - even for the PC.

Steve Denson of SD MicroSystems, who now control the LocoScript name, said that there was no room for any more additions to LocoScript 4.

He told *PCW Today*: "There will be no LocoScript 5 and no LocoScript for Windows.

"No less an authority on the subject than Howard Fisher recently estimated that LS4W would cost a quarter of a million pounds to develop. SD MicroSystems don't have that kind of money and such an outlay would be impossible to recoup from sales.

"And what more could really be done with LS4 on PCWs?

"Instead we will be concentrating on getting the best out of these fully-developed programs and their extensive features.

"The LocoScript story did not end with the 20th Century. This software is rock solid and will be around for many years to come."

Book launched

A major new book for users of Loco-Script 4, the leading PCW word processor has just been published.

The new manual - LocoScript 4
Basic Course - has been written and
published by Dorothy Featherstone of
Unit One Wordprocessing.

Dorothy is a lecturer in IT at Bromley Adult Education College. The ring-bound book includes tutorials based on her own classes, and is the first independent publication to cover the latest version of LocoScript.

It includes easy-to-follow guides on using colour, adding clipart, using fonts, and drawing tables.

You can buy your copy direct from Dorothy at Unit One Wordprocessing, 5 St Giles Close, Famborough, Kent BR6 7DT. The book is priced at £12, plus £2 post and packaging, although this barely covers the costs.

New Loco Office

Instant Recall, the LocoScript and LocoMail add-on from David Landers has been updated and relaunched.

Versions one and two of the package have been tweaked by the programmer, and the programs will now be bundled together as 'LocoScript Office.'

The new package will be sold for £19.95 by both David Landers and SD MicroSystems. See their adverts for contact details.

DTP for the 16

Developers are working on a new desktop publisher for the PcW 16.

Mini Publisher from SD MicroSystems is currently only available for the classic PCW series, however the company is working on a new version to work with the CP/M clone.

The conversion is now 95 per cent complete and a working version is being tested at the firm's headquarters in Norfolk.

The package, based on Super Labeller, allows whole A4 pages with graphics and text to be printed, making posters and greetings cards possible.

The release date has been delayed, but the package should go on sale later this year.

interview

the real locoscript story

we said no to microsoft

In a fascinating interview with **Adrian Braddy**, former LocoScript boss **Howard Fisher** reveals the remarkable story behind the rise and fall of his Dorking empire.

The year 1999 was quite a significant one. It marked the last of the nineties, the end of the 20th Century and the finish of the second Millennium.

Meanwhile, almost unnoticed, on a small industrial estate in Dorking, Essex, opposite the Wickes DIY store, 1999 also marked the end for a tiny British company that did its bit to change the world.

For in September 1999, Loco-Script Software, makers of the first easy to use word processor for the masses, went into liquidation.

The company, a household name in the eighties, was one of the major players in the moves from typewriter to processor. It played a vital role in the computer revolution that now envelops us all. Yet the national media barely noticed its passing.

In his first interview since LocoScript was sold on to SD MicroSystems, the former boss of the firm explains why the growth of PCs and not the fall of PCWs killed-off his company. And he tells a fascinating tale of 14 years in the computer business, during which LocoScript Software helped shaped the computer business and said 'no' to a lucrative offer from Microsoft,

now the giants of the computer industry

Here we reveal Howard Fisher's candid thoughts and memories...

Do you regret selling LocoScript? Yes and no. Over the 14 years that I'd been at the frontline dealing with LocoScript's customers, it was great to feel that we were doing something which they valued.

Many came back time and time again and so even if I didn't know them personally, it seemed as though

Just because a box is 10 years old, there's no need to throw it out if it does what you want

I did. It will be a shame not to be dealing with these people any more. Indeed we were meeting new people all the time and it was rewarding to help them when the UK computer industry so obviously let them down. Just because a box is 10 years old, there's no need to throw it out if it

does what you want.

And when it was time to move on, these people would listen to the usually good advice we gave and support us when we continued to support them.

The "no" is because of the other side of the coin. The people who wanted everything for nothing whether that was sorting out their problem with a PCW, or converting to a PC. Those who wouldn't read the manual and expected you to hold their hand through their particular problem free of charge. It was a great compliment to our level of service that after not buying a PC from us, customers would come back to us for support on Microsoft Word on their new PCs. It was disappointing however, when an explanation of why they should talk to the people profiting from their recent purchase and not us, was greeted with abuse.

You are continuing to maintain the LocoScript web site and are acting as an advisor to SD MicroSystems. Is this because of a fondness for the firm?

In part yes it is, and particularly with the web site. Bus it is also

because of a commercial agreement. It was unreasonable to expect SD MicroSystems to pick up the Loco-Script products unaided and both Steve and I wanted to ensure that his customers continue to be as well supported as LocoScript's were.

What future do you see for the PCW?

For the PCW I see a healthy future. PCWs are remarkably resilient and many are as good as when they were first made, up to 14 years ago. SD Micro's drive reviver kit had been a great seller for us at LocoScript and had given hundreds of PCWs a new lease of life.

As they continue to sell this product, SD Micros will be ensuring a long life for many PCWs.

On the software side with LocoScript 4, we put as much into the PCW as will fit - but it was sufficient to cover just about every wish-list item from the users - or at least those that could be achieved.

Whilst there are always cases where the PCW is simply not powerful enough to satisfy the users' demands, we found our PCW part exchange against a PC meant that we could refurbish and recycle PCWs to go on for some time for customers happy with the PCW solution. I am glad that SD Micros are continuing this policy.

Do you have any abiding memories of the last 14 years?

I was pleased that when we set out four years ago to concentrate on the PCW and decided to produce LocoScript 4, that we came in on time with what we had planned and with a tremendously reliable product, even in the first release 4.00.

One of the most vivid memories was of Alan Sugar's demonstration

of how easy a word processor should be to use.

He ran up three floors of Amstrad Towers to use the Telex machine to fire off a loosely linked series of colourful invectives to his Far Eastern supplier about how he wasn't entirely happy with their current service.

On a later occasion we were negotiating with Amstrad over LocoSpell. Alan Sugar grabbed the phone from his marketing guy who was talking to me and yelled down the phone: "Do you want us to sell the f***ing thing or not."

Lastly I remember a year or so back being berated by a particularly obnoxious and self-important Independent journalist.

He rang the support line for advice on using the Internet on his PC (not one we'd sold him) and then swore at the support assistant about the cost.

I liked his description. He called me: "Assertive and interrogatory"

The support assistant rightly put the phone down on him, so he then rang me to complain.

He then grumbled in his column when I backed-up my staff and pointed out that he was not actually asking about any of our products. I did rather like his description of me published in his moaning column however. He called me: "Assertive and interrogatory."

Shows were always fun - be they huge-budget affairs at Olympia and the NEC - or talking to small clubs and groups. Before our first large

show we trained the staff on exhibition tactics - including how to escape from the visitor from hell. You should invade their body space whilst shaking hands - they just have to leave. Try it, it works!

But you never knew what was coming - including lying on the floor in the middle of Ally Pally at an Amstrad show when someone had brought along a portable conversion of the PCW and that was the only place we could look at it. Or when a customer would suddenly produce a printer from their back pack and want to print out a document there and then.

It was disappointing to have driven two hours to a club to discover that only four people had bothered to turn up and one of them hated LocoScript and heckled all evening. Even so I like to think we answered all technical questions that were brought up.

What would you say defines a PCW user?

We always thought of our typical customer as a retired vicar.

One thing that most of our customers had in common was writing. A tremendous number of our customers were writing their autobiography or a story based on themselves. Every now and then discs of these works would come past my desk because of some technical problem.

On reading bits, it was sometimes very tempting to suggest that the writer really shouldn't bother.

But on other occasions the works were very impressive and it was nice to be able to help the author in some way - if only to explain that you didn't need to put a carriage return at the end of every line.

On one occasion we received

interview

the real locoscript story

some discs from the (now) Marquis of Bath. I won't say which category their contents fell into, but the recipe disc was, shall we say, interesting.

Did you ever make a decision you regretted later?

There are two decisions we made that may have made the future very different.

Firstly we said no to Microsoft. Steve Ballmer, now President of Microsoft visited us back in 1990 wanting to commission and licence a version of Locomotive BASIC 2.

We simply didn't have the resources to say yes - to this day I don't know whether it was the right decision. Steve Ballmer impressed me though.

Another decision, made for all the right reasons at the time, was not to do a Windows version of Loco-Script. I have no idea in hindsight if I was right.

The only time where I did disagree with my then co-directors was on our decision not to pitch aggressively for the PcW 16 contract.

As Amstrad's timescale was unmeetable we pointed them to Creative Technology for a cheap and cheerful quick solution.

As is generally agreed, they ended up with a dog of a product. Should we have said: "No, this is not what you want," and given them an optimistic time schedule, secure in the knowledge that they'd slip first? We certainly couldn't have done any worse.

What made you stay so loyal to the PCW when presumably you could have moved exclusively into the lucrative PC market?

It was actually a move into the PC software market that nearly killed

the original Locomotive Software and ended up in us selling our souls to Demon Internet back in 1995. Nowadays people simply don't want to pay for PC software.

I felt we'd been neglecting the PCW and that its users deserved better. The result was LocoScript 4 and this proved there was still a good market that was not being eroded as the PC software market was

I think the reception LocoScript 4 got showed it was the right decision.

However one of the things I did want to do when I'd split the company off was to give PCW users a cost effective path into PCs.

But the PC market is so cut throat that whilst this generated revenues it did not generate a lot of profit. To expand that side of the business meant that we'd have had to reduce the prices to compete and that would

The PC market is so cut-throat it did not generate a lot of profit

have meant cutting our support to the execrable level of the national PC suppliers.

Also selling Windows PCs is not a rewarding exercise. When a PCW user upgrades to a £1000 PC he or she expects something more reliable - but with Windows the opposite was true.

And the scope for self-inflicted damage by installing software thereafter is something that I just don't have thick enough skin for. I would not be able to simply say "tough," which is the only economic thing a company can do.

One serious problem came early last year when the company from which we were buying PC warranties went into liquidation, so costing us a substantial sum to replace the warranties or to pay for work to fix warranty problems.

And then the supplier of our PCs ceased trading making the warranties that we had just bought worthless unless we bought any spare parts. This unfortunately proves how tight the PC margins were.

The starter PC that we sold was in fact a much better upgrade path for nearly all PCW users. It would give them a LocoScript machine running vastly faster than their PCW and not including Windows meant it was cheaper and not reliable. Regrettably though, everyone wanted Windows, so the Starter PC simply wasn't a good enough proposition to the customers. And the rise of the Internet meant that PCs really had to have Windows.

What are your plans for the future? I heard a rumour you wanted to buy a pub.

Indeed so. As you will have no doubt gathered, I'm not the greatest fan of the way the PC industry is going at the moment. I've deliberately taken some time off to concentrate on other things - including getting my own PCs working to do the things I want to do with them.

I have for some years wanted to run a pub - largely because I see so many run badly - so it is an option I'm considering seriously.

And finally what message would you like to give to your customers who remained so loyal for so long? Thank you. Stick with the PCW where appropriate, you'll be in good hands with SD MicroSystems.

club scene

around the amstrad user groups

club scene

Brisbane PCW User Group

Mike Mackenzie runs this Australian club. To contact him from outside the country, telephone 617 32775701. Alternatively you could e-mail him on avcom@gil.com.au

British Amstrad PCW Club

Well-known club secretary David Lalieu has resigned from the committee, so Mike Elliston has taken up editorship of the newsletter.

The name of a replacement secretary has not yet been announced.

In the meantime, Daniel French has taken over control of the club's public domain library, which currently holds nearly 200 discs of PCW software and clipart.

Recent meetings included an Introduction to CP/M in two parts.

The ever-excellent club magazine The Disc Drive is currently running a great series on accessing the Internet with your PCW.

Contact membership secretary, Steve Massam, 27 St Marks Road, Hadleigh, Benfleet, Essex, SS7 2PY. Tel: 01702 555398. Or e-mail him at Steve@lentil.org

Costa del Sol PCW Users Club

No longer affiliated to the U3A, the group has 15 active members. Full membership costs P3,000 per year.

Meetings are fortnightly on Mondays from 11am at the Manilla Bar, Paseo Maritimo, Los Boliches. Contact Ken Tether on 95 293 2096 for more details.

Crawley PCW Club

Following their spectacularly successful PCW show last year, the Crawley group have opted to cover PCs as well as PCWs.

We're not quite sure why they made this move, as PCs and PCWs are as similar as chalk and cheese. Still, we wish them luck. The club programme for 2000 is still PCW dominated fortunately, including a look at Flipper and the Network, and an evening devoted to MicroDesign 3.

Contact Membership Secretary Aldyth Scott on 01293 523513.

Heads of the Valleys Group

This Welsh group still continues to operate informally and the few remaining members

still correspond on PCW matters. Contact: Anthony Hill on 01222 618012.

Hereford Computer Club

It costs £15 to join up and that includes subscription to the club magazine - Keyboard. Meetings are held from 7pm on the first Wednesday of each month at The Cellar, 41 Widemarsh Street, Hereford.

Joyce Computer Club (Amsterdam)

The PCW's highly active presence in Holland has its own web site, which is now regularly updated. You can find it at www.euronet.nl/users/fvempel. Contact: Frank Van Empel, Leksmondhof 8, NL-1108 EM Amsterdam. E-mail: fvempel@euronet.nl.

Joyce User AG (Germany)

One of the biggest PCW clubs in Europe, this group has a major on-line presence in both German and English at www.joyce.de where you can find information and pictures showing the club's activities.

The club produce a large magazine and have a software collection. Contact the group c/o Werner Neumeyer-Babel, Liemeckestr Sa, D34466 Wolfhagen, Germany. Or you can e-mail him at postmaster@joyce.de

Kentish PCW Club

For further details, contact: Leslie Merchant, 14 Mill Road, Northfleet, Gravesend. Tel: 01474 335882.

Leeds Amstrad PCW Club

For more information on the club, contact Paul Newmark, 18 Claythorpe Road, Leeds LS16 5HW. Tel: 0113 2755576.

MicroDesign International User Group

Membership includes subscription to the excellent magazine - The Design Tree. Contact: Doug Cox, 132 Adelaide Grove, East Cowes, Isle of Wight PO32 6DF. 01983 296366.

Morley Amstrad PCWers

This club meets in Morley Public Library at 7.30pm on the second Tuesday of every month. Membership costs just £10. The group has a library of PCW software. Contact: Frank King on 01924 430319.

PCW Australia Group

Sid O'Brien writes "There are still a number of people including myself doing their best to support the Amstrad PCW and its users in OZ." Contact him via e-mail at killjoy@one.net.au

RADSTOCK.pcw

This enthusiastic PCW club meets on the second Friday of each month at the Radstock Methodist Church from 7.30pm.

For more information, contact Adrian Hooper, 40 Kilmersdon Road, Haydon, Radstock, Avon BA3 3QN. Tel: 01761 436276.

SCOTWEST.pcw

David Williams complains that the millennium was a bit of a damp squib, with no bug to speak of. He has also changed the format of the club newsletter due to a "dearth of PCW related information."

Rather than go down the PC route taken by so many other publications, David has opted to write about batteries!

Contact: David Williams, 32/34 Carfin Street, New Stevenson, Motherwell ML1 4JL. Tel: 01698 732403.

SIG - Amstrad PCW (USA)

Believe it or not, there is a PCW club in the States, with a regular newsletter. It's a branch of Mensa, and is run by Al Walsh. You can contact him at 6889 Crest Avenue, Riverside, California 12503.

Somerset PCW Club

For details, contact: Elsa Turner on 01935 823618.

Widmore PCW Club

Members meet on the third Wednesday of the month at Bromley Adult Education College.

There are an average of 14 to 20 members at each meeting with 50 members in total, making this one of the biggest PCW clubs around.

The club celebrated Christmas with a 'PCWy Quiz' and social evening.

For more details, contact Dorothy Featherstone on 01689 858105. And be sure to buy a copy of her new book on Loco-Script 4. how to diagnose a fault

my diagnosis

PCW repairs expert Ron King explains some of the most common things that can go wrong with your "classic" PCW

The PCW is a relatively easy machine to service because it is made up of a few self-contained units, namely the screen tube (CRT), the power board, the CPU board, the disc drive(s), printer and keyboard.

There are also minor items in some models such as brightness controls and keyboard sockets which are separate. They seldom cause problems but are, in any case, easy to replace.

The power board takes electric current at 240 volts and converts into the various voltages to run the screen tube (CRT), drives, printer, keyboard and all electronic circuits.

The CPU board contains the Central Processing Unit (CPU) - which is a Zilog Z80a, memory banks, and controller chips for the drives, printer, keyboard and screen.

The power board supplies power to the CPU board and through the CPU board to the drives, printer and keyboard via the controller chips. The CPU board then passes back information to run the screen and supplies video memory.

Common problems which affect the PCW are listed below with the probable diagnosis.

Screen does not light up when the PCW is switched on

Check whether the disc drive(s) lights are on. If not there is a total power failure. Check the fuse in the mains plug and if broken replace it with a three or five amp fuse.

Check the fuse on the power board and replace if necessary with another of the correct specification.

If the lights are on in the drive(s) it could be a partial failure of the power board or the CPU board.

In very rare cases it could be a faulty screen (CRT).

Screen lights up but PCW fails to start when disc is placed in A: Drive

The disc may be corrupted - retry with other discs. If this fails it may be a drive fault or a fault in the CPU board.

The odds are that it is a drive fault. If nothing appears on screen but after a minute or so the machine emits three or four beeps, it is most probably a drive fault - the beeps indicate the CPU board is working okay.

PCW starts okay but error messages appear on screen or machine behaves erratically

The most likely cause is a faulty disc drive, but first make sure that it's not a software fault. Persistent failure to format or verify discs could indicate a faulty batch of discs - there are some poor CF2 discs around, even new ones.

If possible, stick to well-known makes such as Amsoft, Maxell and Panasonic. Software faults can sometimes be difficult to diagnose, but if the same fault persists with different programs, then it is probably the drive that's at fault.

Machine boots okay but then odd characters appear at the A> prompt or machine beeps constantly. The keyboard does not respond

This is a keyboard fault. Check that the keyboard is plugged in properly. If it is, the fault probably lies in the keyboard connecting cable - a broken wire perhaps. Check with a continuity tester.

If the machine has been opened the fault may be in the connection between the keyboard socket and the CPU board.

Printer doesn't work

You may get the message "No Printer". Switch the machine off and check the printer connections by unplugging and replugging a couple of times.

If possible, try another printer, or try the printer on a different machine. Possible faults are a failure of the 24-volt supply, a faulty printer controller on the CPU board, or a faulty PC board on the printer. **Dot matrix printer makes a line**

through print-out

This is probably a fault on the printing head. A white line indicates that a pin is sticking in and never makes contact with the paper. A black line indicates that a pin is sticking out, making repeated contact with the paper.

Daisywheel printer 9512, 9512+ behaves normally except that it prints faintly or not at all.

This is usually due to a fractured armature. Move the carriage to the left side. Between the electric coil and the guide rod, the armature is the oddly shaped part which goes in and out under the influence of the coil and operates the hammer mechanism.

Check whether there is a crack (you may need a magnifying glass) in the side, probably near one of the holes in the moulding.

If so a new armature must be fitted as it cannot be repaired.

These are a selection of the most common faults found on PCWs. They can be remedied with the correct spare part by anybody with a little patience, a minimum of tools, and the full instructions that I will be supplying throughout this series.

Do not remove the back from the machine without observing proper safety precautions - extremely high voltages lie within.

Also, unless you are an electronics wizard and have the necessary equipment and knowledge, it is not worth attempting to repair power boards or CPU boards. Instead fit a replacement - it's more cost-effective.

For more information, visit Ron's web site at www.king27.freeserve.co.uk

10 • PCW Today • Issue 13

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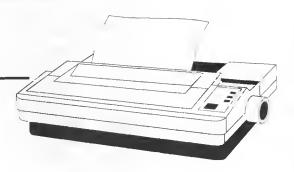
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internet

how you can get on-line

getting netted

Your PCW really can join the world wide web. In a special report **Daniel French**, **Adrian Braddy** and **Ian MacDonald** discover the easiest and cheapest way to get on-line

Whenever you turn on a television they are talking about it. Whenever you pick up a magazine or newspaper there are numerous references to it. Even your friends can't stop going on about it.

You just can't escape the Internet. It is growing at a phenomenal rate, and soon half the homes in Britain will have access to the World Wide Web in one way or another.

As a PCW user you may feel especially isolated and tempted to splash out on a nifty PC or Mac, with in-built access to that wonderful world of information.

Because of course you can't get onto the Internet with a PCW... can you?

Actually the PCW is capable of most things, and even your ancient 8256 can surf the web, in its own unique way. Believe it or not, it is even possible to get online with your PcW 16 and the CP/M emulator.

Of course, it is not quite as simple to go on-line with a PCW - simply because most of the major companies have forgotten Amstrad computers even exist.

Having said that, just about anyone can use their PCW for e-mail, if they have the right software and hardware to do it. And with a bit of a push, good old Joyce can even browse the web along with the best of them.

All this can be achieved for less than £75 - it's a lot cheaper than getting a PC and of course, a lot more fun!

So exactly what do you need to go online? Here are the main elements you need for Internet access.

Modem

The first piece of vital kit you need is an external modem. You may have heard of these as they have been around for quite some time. What the modem does is transfer digital messages from your

computer into analogue messages which the aging telephone system can cope with. And it does the same thing in reverse, when receiving messages.

The modem is needed basically because the telephone companies haven't caught up with the computer age just yet and they are not capable of transmitting digital information

Over the last few years modems have become faster and more reliable, but of course the old PCW hasn't changed much and can only deal with certain speeds of information transfer.

Modem speed is measured in Bauds per second (bps) - yet another of those techno-terms designed to confuse us. Basically the baud rate counts the number of 'bits' of information the modem can transmit every second.

Depending on what serial interface you have (see later), the PCW can run at either 9,600 bps, or up to 38,400 bps with the more modern equipment.

Get the fastest modem you can afford and make sure it runs at least 2,400 bps because, the slower the modem, the higher the phone bill. A good entry-level modem runs at 14,400 bps.

Be sure to ask the salesperson for an external Hayes compatible modem, anything else will not work with your PCW. Many modems these days are internal - but of course they are designed for PCs and are not much good for your PCW

Also be sure to get an 'intelligent' modem and not a 'dumb' one. All new modems are 'intelligent' - it just makes your life easier.

Once you have bought the modem you should find it has two cables. One to connect into a telephone socket, the other to attach to the serial interface (socket) on your PCW.

Serial Interface

Now this is where we hit our first major snag - unless you are a PcW 16 user. Yes that's right. For once 16 users can claim one over their classic compatriots.

The modem needs a serial interface where it can be connected to your computer.

In their great wisdom, Amstrad omitted to include a serial interface on their PCWs until they developed the 16 in 1995.

So those people without a 16 will need to find an add-on interface - if you haven't already got one. Unfortunately the two main PCW serial interfaces are no longer produced and they are becoming harder to find.

By far the best interface is the Margolis Fax Link, which was distributed by LocoScript Software with their comms package a couple of years back. This runs at a whopping 38,400 bps - which is about as fast as you would ever need for what the PCW can do. Sadly, none of the companies we asked has stocks of the Fax Link left.

If you find one for sale - grab it!
The second option is the much older
CPS8256 design. This is not reliable
above 9,600 bps, but it is a lot easier to
come by second hand.

And if you ask them nicely, one of the PCW companies may be able to trace you one. They are also a fairly common find at car boot sales.

There are other serial interfaces out there. SCA for example sold one at a time, called the ProLink. These too could cope with high speeds.

Check your add-on port to see if you're lucky. Serial interfaces look like the parallel interfaces used for attaching external printers - only they are about half the size.

internet

how you can get on-line

Software

There are several pieces of CP/M communications software floating around. But sadly no web browser. (Web browsers enable the user to navigate the Internet, moving from one site to another with ease). We believe it would be possible to develop a text-based browser, and to all those programmers reading this - the challenge is set.

Anyway a web browser is not necessary - the PCW can cope without it. A piece of communications software is essential. The most basic is Mail232 - which was written before anyone had even heard of Microsoft. However it does the job and you probably already own a copy. Amstrad gave it away with every PCW apart from the 16 and you should find it lurking in one of your master discs. If you've not got a copy - you should be able to get it for next to nothing from any one of the big PCW companies.

There are more sophisticated products out there. One package, called QTERM is available for download on the Internet - ask a friend with a PC. This is more advanced than Mail232 but hardly user friendly.

Then there's Comm+ the commercial package written by Margolis & Co - the people behind the Fax Link. Again it is no longer available, though SD MicroSystems may have some copies knocking around as the package was sold by LocoScript Software. It is the most powerful of the bunch and certainly easy to use.

Alternatively you could try Mini Office - which has a comms module, or PcW Comms - both readily available second hand. These two programs are user friendly and reasonably comprehensive.

Getting Started

As we have said, the PCW can surf the Net, but because it does not have its own web browser, you need to use Lynx. This is a text-based browser and it cuts out all the pictures your PCW can't handle.

To operate this you need to belong to an Internet Service Provider (ISP) who offers 'terminal access'. Effectively the ISP's computer will run the Lynx browser for you remotely.

Now with the growth of free ISPs without terminal access such as Freeserve and Virgin.net, the price of those that do offer the service has shot up.

You are now looking at around £10 a

month to access a company like Almac who could run Lynx for you.

In future issues we plan to look at using Lynx. But because it is so expensive and tricky to use, we have decided to concentrate on e-mail access instead.

For now we will use Mail 232 because it is the most easily accessible software.

Once you have connected up the modem, load up CP/M and insert the Mail232 disc and type MAIL232 [RE-TURN]. What should load up is a menu across the top of the screen a little like that in LocoScript.

Your first task before doing anything else is to configure the software to match your equipment. Pressing the [+] key next to the spacebar will bring up the "Tx rate" menu. This shows the settings for the speed your modem can transmit. Choose the highest number, as when the program was written back in the Stone Age, modems couldn't work any faster than 2400 bps, and so the software can't work any faster than that. The second option is "Rx rate" which shows how fast your modem can receive information. Set it to the same level.

The other options can be ignored, as they are more or less obsolete now.

Press [EXIT] and you are ready to venture into the bold world of communica-

At the prompt, type AT [RETURN]. This sends a signal to the modem asking for ATtention. If all is well the message OK should appear on the screen. If you don't get this message, turn off your computer, and check the connections.

If there were no problems it is safe to continue, as your modem is now alert, awaiting your command.

Now we recommend that you join one of the few text-based e-mail systems left. Woking-based Lentil Computer actually accept the existence of the PCW and continue to cater for the machine. Lentil is currently free, and because they have so few members (47 according to their web site) you can get a good, easy to remember e-mail address.

To log-on to Lentil, you need to dial their modem number. Type ATD 01583-834-626 [RETURN].

If all is well, your modem should begin to make funny squealing noises like the soundtrack to an old Doctor Who episode unless it is the silent type, in which case it will probably just flash a light at you. After a while, if the line is not busy, you should connect to Lentil and the message "CONNECT" or "CARRIER" should appear on-screen.

As this is your first visit to Lentil, you will have to register as a new user. Enter your user name as NEW and a registration form will appear. The on-screen questions are very simple. You will be asked for all the usual information such as name, address, telephone number, type of computer. When asked to select "terminal type" press [T] to select TEXT-ONLY. You will have to choose a user name - this will also be used for your e-mail address - and a password for security.

Once the form has been completed, you will be told that your responses are being saved.

Wait until the options menu appears then type LO [RETURN]. And that is hopefully that. You are now registered and officially on-line.

Unfortunately, because Lentil is such a small outfit, you will need to wait for a while before you can actually start emailing. It can take up to a week for registration to be completed.

Your first e-mail

After the week is up, access Lentil as before, only this time enter your new user name and password. You should now be transported to the Lentil main page.

From here type EM [RETURN] where you will be politely told that a new mailbox is being set up for you. Once the mailbox has been prepared, the e-mail menu will appear on-screen.

There is a detailed list of options, the most important being "Send message" and "Read your mail.."

From here it is all pretty self-explanatory. If you wish to send an e-mail to a friend, type SM [RETURN]. You will be given the prompt "Send message to:" Here you would key in the e-mail address - for example pcwtoday@postmaster.co.uk. You are next asked for a subject, so give your message a title - this will be read by the recipient of the e-mail.

You can now enter your first message, which can be mailed to anywhere in the world. Finish your prose with a * [RE-TURN] to end the message.

The option is now given to send the message, abandon it, display it, or attach a file to it. In almost all cases you will want to send the message. Type S [RETURN] at

internet

how you can get on-line

the Command line and your mail will be allocated a number.

Choose whether to send by recorded delivery or not, and the message is sent, sliding down the telephone wires in an instant. Talk about hi-tech!

You can even send the same message to more than one person - which you're likely to want to do if this is your first time.

You're bound to want to let all your friends know you've joined the information super highway.

So what does this all cost? Well unless you happen to live in the Woking area, your e-mail will be charged at the national rate.

But it only takes about five seconds to send an e-mail and that's just like five seconds on the telephone. Not exactly expensive - particularly if you take advantage of the weekend cheap rate and BT's "Friends and Family" discount scheme.

Surfing the Web

Now although we said surfing the Web was very expensive and you needed access to Lynx to do it, this is not strictly true.

Believe it or not, you can browse the web using the e-mail method described above

Software has been developed that send individual web pages, converted to text, by e-mail direct to your computer, allowing a primitive sort of surfing.

You don't need to buy this software - it is operated by what is called a webmail server, who does all the work for you - for free.

Strictly speaking, web-mail is designed for developing countries, but it has been made available to anyone who cannot surf the web on their computer.

You are however asked not to abuse the service.

There are several webmail providers around, who use a number of different systems. The main types are Agora, GETWeb and WWW4MAIL or WWW3MAIL. Forget Agora - it is an outdated and slow system, your best bets are GETWeb and WWW4MAIL.

Of course you can try several servers and see which one you prefer, but we reckon that a US GetWeb operation, run by a health firm, is by far the best, the fastest and most versatile option. The e-mail address for this operation is getweb@usa.healthnet.org.

To begin "surfing" you need to send a message to this e-mail address.

So as before, choose to "Send Mail" and key in the Healthnet address. In the subject line, type anything - it doesn't matter too much.

Next you'll be asked to type your message. Here you need to enter the name of the web site you wish to visit.

If you know the exact address or URL of the site, type GET http://name of site. The "GET" part is an instruction to the server to literally GET you that web site.

So for example you could access the PCW Today On-line site by typing GET http://members.tripod.com/~pcwtoday and pressing [RETURN], followed by a * followed by another [RETURN] to signal the end of the message.

Send this message as described previously, and wait for the results. Because of the slowness of Lentil this can take a while - up to a day.

However this could improve in the near future - watch this space. Healthweb actually e-mail you almost immediately back with the contents of your requested web-page in text form - like magic.

Now this is good but it is restrictive because you must know the exact address of the web page you want to look at. In most cases you will not know what the address is.

This is where a "search" comes in. You can opt to search the whole Web for certain key words, and a "search engine" will find the best sites for you.

With Healthweb this is an easy operation. As before create a message to Healthweb, only this time, in the main body of the message write: SEARCH YAHOO "Amstrad PCW"

Send this message as before, and miraculously, before long a list of sites covering information about the Amstrad PCW will be mailed to you, complete with descriptions.

You can then jot down the web address of the sites that tickle your fancy and request Healthweb to send you copies. It's that simple.

Of course you can switch "Amstrad PCW" for any subject you like, and the subject can be as detailed or as basic as you like.

There are web sites devoted to just

about everything you could ever think of. And if you drop the quotation marks, the search is widened.

This technique makes use of a "search engine" called Yahoo. Using other search engines can produce different results. You can try SEARCH ALTAVISTA or SEARCH INFOSEEK.

Healthweb provides many other services, and you can find out more information by simply typing HELP as your message. Without delay, a large help file will be mailed to you.

Healthweb is currently available to everybody free of charge. You can request 200 pages per week and even make more than one request in a single message.

However we understand that free access to this service may not always be available, in which case you should try one of the other webmail servers dotted around the world.

There are three we can recommend - all of them using the WWW4MAIL system. They operate in much the same way as Healthweb, and are reasonably fast. The e-mail addresses to try are: www4mail@wm.ictp.trieste.it, www4mail@unganisha.idrc.ca and www4mail@web.bellanet.org

The latter two are based in Canada and the first in Italy. The main disadvantage of these servers is you cannot easily operate web page searches.

However, undefeated, *PCW Today* has found a way. To access the Excite search engine, send a message to one of the above addresses requesting the following:

GET http://search.excite.com/ search.gw?search=amstrad+pcw

Replace amstrad+pcw with whatever you want to search for, but note that separate words should be connected with a + not a space.

Send this message and you should receive back a list of web sites as you do with Healthweb.

One final point. If the address of a web page you are requesting is too long to fit on one line, you need to split it in two with a "back slash" (\\). This can be found on your PCW by pressing [ALT] [\(^{1}/_{2}\)].

And that is how to access the Internet with your "obsolete" Amstrad PCW. It may be something of a challenge, but it's great fun and costs very little money. Why not give it a go yourself and Get Netted?



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new locoscript 4 manual

fully booked

It's been a long time since we saw a new PCW book but as Adrian Braddy finds out, it was worth the wait!

Since LocoScript Software ironed out the early bugs, there has been nothing but praise for their superb LocoScript 4.

There is no denying that the program took the PCW further than anybody thought possible with colour, pictures, columns, tables and many other features only possible on the most expensive of PC word processors.

However where LocoScript 4 falls down is on documentation. There is no single LocoScript 4 manual. Users have to make do with a small booklet accompanied by a copy of the LocoScript 3 manual. And the booklet was hardly comprehensive.

Now though, things have changed, with the publication of a guide to the new features in the latest version of the word processor.

LocoScript 4 - A Basic Course is a real tour de force from the pcn (or should that be keyboard) of Dorothy Featherstone.

Dorothy is well-known in PCW circles, and has for some time now taught classes on PCWs at a college in Bromley, where she also runs a major PCW club.

This book is a result of these classes. and is a written version of her acclaimed tutorials

The first thing that strikes you about this book is its size. This is a mammoth work, with 273 A4 sized pages, and certainly worth the money on paper volume alone.

The pages are ring-bound with a plastic cover, which means the book will lie flat on your desktop, whichever page you are looking at.

The book is effectively split into two sections. The first is a series of assignments. There are 18 in total and they take you through the most important areas of working in LocoScript. Subject areas include columns, pictures, setting tabs,

fonts, mail merging, screen codes, find and replace, and many more.

The second part of the manual covers tasks and activities that you can try yourself. There are numerous ideas and concepts that could inspire you to create some wonderful documents.

The detailed guides show how to make Christmas cards, posters, a compliments slip, invoices, numbered tickets, a poster, illustrated poems, an order form table, and the list goes on.

in no time at all you will be producing your own works of art

Each project has a step-by-step guide which is fully illustrated and easy to follow. In no time at all you will be producing your own works of art.

The book is also full of screen shots from LocoScript, however unfortunately some of these have not reproduced too well and some are almost impossible to make out. This is really the only downside to the whole publication, and really it does make little more than a cosmetic difference.

The manual is well laid out, and is clear and easy to read.

There is a detailed glossary at the front of the book, and a good contents page, although sadly no index.

Every now and again as you work through the book, you will reach a revision chapter, which will take you back over some of the principles you have already covered.

This brings back memories of school reference books, but it is actually a great idea, and very helpful.

Once you have purchased the book,

you will find inside there is an order form which asks you to send two formatted discs to Dorothy. In return she will send you copies of the course disc accompanying the book, and a disc of clip art to help you in your projects.

VERDICT

This is a terrific book, and you can see all the time and effort that has been put in oozing out of the pages.

In easy to follow stages, everyone from the absolute beginner to the veteran expert will learn something new from this

Because of its cleverly thought out format you can skip sections, work at your own pace, and create new ideas that you never thought possible.

Reading this book it is almost as though you have Dorothy Featherstone at your shoulder, guiding you through every stage on the path to successful comput-

If sold in the shops this would carry a cover price of at least £20 or £25. At only £12 it is a snip.

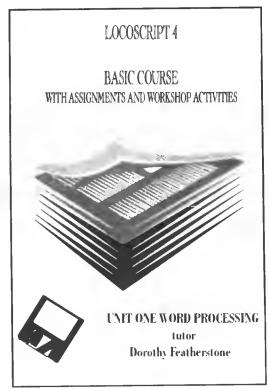
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The book lists the new features in upgrading from LocoScript 2 and 3 to version 4 and explains simply how to apply them.

It is an easy guide to all word processing techniques from basic commands to advanced features. The book gives advice on installing Decorative and Business fonts, adding an external printer, printing in colour and adding clipart pictures to enhance text.

It includes help with tables, columns, page numbering, inserting frames, boxes and pictures. It contains interesting activities to pursue including repetitively numbering theatre tickets, creating exciting posters, illustrating poetry and displaying newsletters efficiently. It will refresh and enthuse the experienced PCW user and show new users what can be achieved with a simple Word Processor/Computer.

a new database for all pcws

ground breaking

SD MicroSystems' new database is the first progam to be written for ALL PCWs. Adrian Braddy takes a look.

A ground breaking piece of software was launched at the Crawley PCW Show last

MicroBase, the new database from SD MicroSystems, is not exactly a revolutionary product - at first glance it is just another database, and there are plenty of those about

Yet what sets this program apart from all the other databases on the market is that it is the first program written to work with both the PcW 16 and the classic PCWs.

This new package has broken down one of the barriers separating the traditional and the new PCWs. Up until now, 16 users have only been given conversions of classic software. This is the real thing.

MicroBase was written with the PcW 16 in mind, because users of the machine have been crying out for a good quality, user friendly database since it was launched.

It is produced in Mallard BASIC, but don't let that put you off. This is a sound, well-priced product that does exactly what it sets out to do.

MicroBase has the same look and feel of all SDMicro products, with the familiar main screen and menu.

It works as a sort of virtual card index. like a simplified LocoFile, and you can store records of just about anything you could think of. For instance if you run a club, you could keep a record of all your members on file. Or if you have a book collection, you could use MicroBase to keep your collection in order.

MicroBase has all the features you would expect to find in a good database. It has auto search, file tagging, and a variety of printing options.

There are only nine fields to each card. however this should be just about sufficient for most people's needs.

The varied search facilities are MicroBase's trump card. You can search do a complete search, a partial search, a fuzzy search. In fact just about any search you could think of. MicroBase will even tag every file containing a word you

For instance you could find every file containing the word "love" in your collection of CDs.

MicroBase does not automatically put files into alphabetical order, however there is an option to do this. On longer files, this can take some time, and you will need to do it at regular intervals to keep your files up to date. By default, cards are kept in numeric order.

You can choose to save files on the M: Drive or cabinet, but we would recommend that you always keep a back-up copy on a floppy disc.

You can print all or some of the records in a file. Using the tagging facility you can choose which cards to print out. They can be printed as a list, or as labels.

Some of the more advanced features include a password facility that will enable you to keep some of your more private records secure. There is also a screensaver, although this will really only be of interest to classic users as the 16 has its own screen saver.

The documentation is good - the disc comes with a tasteful pink 12-page manual which gives enough information to get the absolute beginner started, but not too much detail to absolutely flummox

The disc also includes a variety of sample files containing a few records. These should give you an idea of how to go about setting up your own files.

And like all SD MicroSystems products you get 60 days of free technical support, just in case you get stuck.

VERDICT

This is a significant release by SD MicroSystems, obviously targeted at a wide audience. It is likely to appeal mostly to PcW 16 users, as a lack of a database was the biggest gap in the preinstalled software suite.

However as a cheap alternative to the established commercial databases like LocoFile and MasterFile, many classic users will be queuing up for a copy too.

The program appears to be bug-free and because it was written primarily with the 16 in mind compatibility really couldn't be better.

The search functions are the best feature of MicroBase, and it these set it apart from the many "budget" databases so readily available.

Anyone who wants to organisc themselves a little better would find a use for MicroBase, and at under £15, you can't really go wrong.

Note: PcW 16 users will have to get hold of a copy of CP/M before they can get the software to run. SD MicroSystems are the main distributor. BASIC is provided in the package.

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CP/M and BASIC

VALUE	****
EASE OF USE	****
FEATURES	****
OVERALL	****

cp/m basics

guide to the operating system

instruct and obey

It's part four of Kathleen Thorpe's series on CP/M

Sometimes, when typing commands in CP/M, you may need to use the same operation more than once.

For example when using PIP to copy files to the M: drive then back again to a different disc. The command is: M:=A:*.COM [ENTER] followed by A:=M:*.COM [ENTER]

This can be rather tiring on your fingers after a while, but you can avoid this by just typing the first command once. After your files have been copied to the M: drive replace the disc you have copied FROM with the disc you want to copy TO. Press [COPY], the command you typed will reappear on screen. Using the cursor and delete keys, alter M: to A: and vice versa.

You now have your second command with the minimum of typing.

[PASTE] will do exactly the same.

If you type a line incorrectly, or decide you don't want it after all, pressing [ALT] and [DEL] will remove the line so you can begin again. To clear the screen, press [EXIT] and [E].

If you have a one drive machine and want to get rid of the 'DRIVE IS A:' message, [EXIT] and [0] (nought) will do the trick. While [EXIT] and [1] (one) will put it back. Cursor keys and [EOL] work as they do in LocoScript.

When running an application (such as TYPE.COM) to quit back to the A> half way through, pressing [STOP] usually works. However this can be unreliable.

To read an ASCII file in CP/M, use TYPE.COM. At the A> type:TYPE FILENAME.EXT [RETURN]

The contents of your file will appear on screen, at the end of one screenful the message: 'PRESS RETURN TO CONTINUE' will appear. This is fine if you just want to

read the file on screen. However, if you want to print out a hard copy (by pressing [ALT] and [P] before pressing [RETURN] this message will also be printed out and clutter up your document. There are three ways to avoid this problem:

1. If TYPE,COM is on the disc with the file, type:TYPE FILENAME.EXT [NOPAGE] [ALT] - P [RETURN]

If the file is on a different disc, key in : TYPE [RETURN]

You will be asked for the filename, so change to the disc with the file on and type:

FILENAME.EXT[NOPAGE] [ALT] - [P] [RETURN]

The file will then scroll up the screen and be printed out, without the offending message. Press

[ALT] and [P] again after printing to close the printer channel.

2. Type SETDEF [NOPAGE] [RETURN] followed by:

TYPE FILENAME.EXT [ALT] [P]

Again the file will appear on screen and be printed out without the 'PRESS RETURN TO CONTINUE' message (to get the message back, type:SETDEF [PAGE] [RETURN]).

3. PIP LST:=FILENAME.EXT [RETURN] (no need to press [ALT] and [P] this time, the file will automatically be printed out).

One of the most common tasks done in CP/M is copying a file or group of files to a disc. If the disc already contains files, you may want to check whether there is enough space for the file or group of files you want to copy over. This is where SHOW.COM comes in handy. Put CP/M in the drive (if you have two drives put your files disc in the B: drive) type: Show B: [RETURN]

A single drive machine will bleep and ask for a disc for B:, replace CP/M with the files disc and press the spacebar. You will now get a screen message like this: B: RW, space 96k

Now you know that you can copy files up to the value of 96k onto this disc.

There are more advanced uses for SHOW.COM for example if you have a one drive machine and wish to see how much space there is on three discs and the M: drive, this is how you do it. Load CP/M, type SHOW.

You will be told the free space on the A: drive and M: drive. Now with CP/M still in the A: drive type SHOW B: the PCW will bleep and ask for the disc for B:, swap the CP/M disc for your files disc and press [RETURN] you will now be shown the free space for the disc in what your PCW thinks is your B: drive.

Now type **SHOW C:** [RETURN] and you will be asked for the disc for C:, repeat the procedure as above and you will be given the space on the disc in C:.

Now if you want to see the free space on all four drives (A:, B:, C: and M:) just type SHOW [RETURN] and a full list will appear on screen (and you thought you only had one drive !!) SHOW B: [USERS] [RETURN] will give you the following information of all the user groups on the disc:

B: ACTIVE: 0

B: ACTIVE FILES: 0 1 2 3 4 5 6 7 8 9 - 15 (these are the groups on the disc)

B:# OF FILES: 12 1 3 0 0 etc. (number of files in each group) B: No. OF FREE DIRECTORY ENTRIES. (whatever number it is) To find out more about your drive A: type: SHOW [DRIVE]

Issue 13 • PCW Today • 19

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- Protext handles printing in columns with ease
- Simply configured for more advanced purposes
- Protext can easily produce ASCII files to let you transfer between computers, either by software or for e-mail purposes
- The Free Protext User's Club is available to all Protext users for the open exchange of tips, templates and information

Protext v2.23 has had 12 years of continuous development. Despite being highly developed, above all, it is very fast and the user friendly 'look and feel' of the program has been maintained throughout its development. Because of Protext's wide range of useful features, it is impossible to cover everything here, but further information is available if you send an A4 SAE to Brian Watson at Protext Software, *Harrowden*, 39 High Street, Sutton-in-the-Isle, ELY, Cambridgeshire CB6 2RA. Alternatively, you can phone 01353 777006 (from 7-9pm weekdays, or any time at weekends)

CP/M Protext, the one-disc word processing solution, costs just £25. It is available from the above address or from ComSoft, 10 McIntosh Court, Wellpark, Glasgow G31 2HW. Orders may be placed by phone on 0141 5544735, qoting your credit card details. Please state the computer model and your drive A: size when ordering.

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David Landers, Brinkburn Gardens Cottage, Longframlington, Morpeth, NE65 8AR Tel:- 01665 570662. Cheques to:- 'D. Landers' System requirements:- any PCW or PcW running LocoScript 2/3/4 + LocoMail. State 3"/3½" disc.

"If you are really serious about LocoScript, take a look at Instant Recall." PCW Plus "A brilliant program. An essential addition to the LocoScript family." PCW Today

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pcw awards

the result of your vote

joyce awards '99

It's the fourth annual PCW Today awards for the PCW industry - as voted for by you the readers

The champagne is on ice, and the orchestra are warming up as PCW dignitaries gather for the 4th Annual Joyce Awards.

As usual all the top names are here. Howard Fisher has come along to made his lifetime achievement award speech. He's practising that surprised look for when it is announced LocoScript 4 has scooped its the umpteenth "unexpected" award.

Steve Denson is here of course, warding-off autograph hunters. Steve has become something of a PCW pin-up since taking over LocoScript. Every Amstrad-owning granny in the nation now has his picture on their bedroom wall.

Meanwhile, at the other end of the hall, Cliff Lawson of Amstrad is under siege from a gang of hostile 16 users who want to know why their computer experiences more crashes than a destruction derby. Quick-thinking Cliff dodges around an immense ice sculpture of an 8256.

Newly-knighted Alan Sugar arrives to gasps - on horseback in a suit of armour. He informs everyone he rode here direct from Buckingham Palace.

At the PCW Today table, David Langford is hopeful that his company Ansible WON'T win an award. He has now won so many Hugo Science Fiction awards, his mantlepiece has given in under the strain

Nearer to the stage, young Danny French is a popular chap. The Internet expert is demonstrating how anybody can surf with their PCW. The new technique involves balancing on the PCW and waiting for a big wave to come along.

And close by, programming wizard John Elliott is showing off his newest triumph - the PCW Windows emulator. This astonishing product allows you to run Windows 95 on an everyday 9512 with 25 million colours and 3D sound. And it doesn't crash.

Ah, enough of all this. The lights have dimmed, and spotlights are moving towards the stage. It's time for the Joyce awards 1999 to begin.

Best Internet Site

Winner: Runner-up: Last year:

16 Storm (33%)
Ian MacDonald (17%)
Ian MacDonald

The Amstrad presence on the World Wide Web is growing every month, and one of the new kids on the block is 16 Storm.

This superb site, created by Mike Saunders includes regularly updated news, reviews of PcW 16 products, a letters page, links, and pictures.

This year, the definitive PCW web site by Ian MacDonald was knocked into second place. It may have been the first, but it is now rarely updated and is starting to show it.

Best Word

Processor
Winner: LocoScript 4 (55%)

Runner-up: LocoScript 3 (21%)
Last year: LocoScript 4

Once again LocoScript picked up both first and second place, with almost identical percentages to last year's poll.

LocoScript 3 it seems has still not diminished in popularity with many people still using it in preference to the later version.

The PcW 16 word processor was third with an admirable 13% while LocoScript's old adversary polled just 6% of the vote.

Best Customer Service

Winner: Runner-up:

LocoScript (22%)
=Pinboard (11%)
=SD Micro (11%)

Last year:

LocoScript Software

This award is one of the most prestigious, and every company is keen to know who they've done in this award.

For the second year in a row, LocoScript Software, picked up the award - scooping twice as many votes as their nearest rivals.

SD MicroSystems, who of course now own LocoScript, came in joint second with Pinboard.

22 • PCW Today • Issue 13

pcw awards

Ease of Use

Award

Winner: Runner-up: Last year: LocoScript 4 (28%) MicroDesign 3 (15%) LocoScript 4

For the second year running, Loco-Script 4 has scooped the Ease of Use award. The word processor's simple menus and clear layout have won it this prize yet again.

The classic desktop publisher MicroDesign 3 came second, beating last year's runner up the PcW 16 out of sight.

The database LocoFile came third, with 10% of the vote, while the PcW 16 was nowhere to be seen in sixth place.

Best Software

Winner: Runner-up: Last year: LocoScript 4 (35%) LocoFile (20%) MicroDesign 3

This was the one major award LocoScript 4 missed out on last year, after MicroDesign 3 pipped it to the post.

However, in 1999, LocoScript 4 increased its dominance of the PCW world and ran away with victory. LocoFile was second, while MicroDesign 3 came close behind on 18%.

Best New Product

Winner: PcW 16 CP/M (59%)

Runner-up: W. Last year: Last

Writers Desk (23%) LocoScript 4 - Rel 2

Deservedly, John Elliott's fantastic new CP/M emulator for the PcW 16 was the runaway winner in this category.

Quite simply, the software revolutionised the newest of the series, making dozens of pieces of already-written software compatible with all PCWs.

It has since sparked a revival in the fortunes of the machines and deserves recognition. What's more the emulator was made freeware by that generous Mr Elliott.

John Craggs' Writers Desk came second with 23%, while Graphics Express, steamed away with 9% of the vote.

Top Overall Company

Winner: Runner-up:

Last year:

LocoScript (44%)
=Creative Tech (19%)
=SD Micro (19%)
LocoScript Software

All the excitement was in the fight for second place here.

Unbelievably, at the last count, SD MicroSystems and Creative Technology polled exactly the same number of votes.

LocoScript Software were out of sight, with a whopping 44%.

This is the third year in a row that LocoScript have been voted top company. The interesting point will be to see if new owners SD Micro-Systems fare so well in next year's awards.

Best Hardware

Winner: Runner-up: Last year: Pinboard drives (31%) LocoScript drives (19%) Flash Drive

It was the battle of the drives in this year's hardware category. The twice victorious Flash Drive, now nolonger available, only attracted 9% of the votes.

Pinboard's disc drives were runaway winners, followed by the LocoScript drives, which are produced by Silicon City (yes they are still going!).

SD MicroSystems' budget drive,

the result of your vote

the Black Box, which was the surprise hit of last year's Joyces, only managed 9% of the vote this time around.

Best Value Product

Winner: Runner-up: Last year: LocoScript 4 (26%) MicroDesign 3 (14%) Black Box disc drive

It's that word processor again! This is the first time LocoScript 4 has won the value award, but it won by miles this time out.

Now SD MicroSystems have dramatically reduced the price, this should be a cert for next year's awards.

The winner of two years ago, MicroDesign 3, was back in the running, with a second place award. There were a record 13 other products nominated.

No. 1 Overall Product

Winner: Runner-up: Last year: LocoScript 4 (47%) MicroDesign 3 (15%) LocoScript 4

What else could it be but the invincible beast itself. LocoScript 4 equalled last year's achievement and scooped five Joyces.

This really is the ultimate PCW product and it seems doubtful that anything will ever topple it from the top of that tree.

The most likely candidate is MicroDesign 3, winner of this award two years ago, but it was blown out of the water by Loco 4, which took over three times as many votes.

In a bizarrely eccentric piece of voting, the PCW 8256 stormed past the post in third place, with a shocking 12% of the vote!

letters

a selection from our mailbag

have your say

Write your letters to us at: PCW Today, 150 Oxford Road, Middlesbrough, Teesside TS5 5EL.

Or you can e-mail us at: pcwtoday@postmaster.co.uk

"I trust the new look magazine won't have a tartan cover"

My best wishes to you on your move, even if it is to a foreign country. I trust that the new look magazine will not have a tartan cover!

Although this is written on a PC it doesn't mean I have forsaken Joyce.

I presently sit surrounded by six Amstrads in working order and four more in the garage awaiting harvesting of parts to keep others going.

I have just performed major transplant work on two poorly 8 series to give one 8256 with 512k of ram and two disc drives. Every time I give an Amstrad away another donated one arrives for surgery and a subsequent good home.

I keep a core of four machines to enable me to recover people discs or transfer them to 3.5 ".

I purchased an 8512, when they first came out, to make life easier as a Regional Information Officer with the, then, DHSS and went on upgrading until I retired in 1991.

She kept the 3" disc on the dashboard next to her mobile

By then I was so addicted that I kept on going and now use them for my voluntary jobs.

My most horrendous rescue was recovering a mobile hairdressers accounts from a 3" disc she had kept on the dashboard of the car next to he mobile phone.

Her own 9512 had developed the usual daisywheel fauly and she

followed the advice of the local computer shop which was to throw the entire setup into a skip as no one supported repaired Amstrads anymore.

It was only then that she realised that all her accounts were on a disc which PCs didn't read and the VAT man was pressing.

I recovered the accounts but it was too late for another for another good Amstrad. I never charge for repair work or recovery but it has brought several donations t our church restoration fund.

Please keep up the goo work and maintain the life support for out tired and trusted machines.

The magazine really is just that, a life support system. With every best wish for a great future.

Bill Lawrenson, Keyworth.

"An amazingly cheap price"

Just thought I'd drop you a few lines to tell you of an amazing bargain that I found down at my local Currys store! I found this PcW 16 for an amazingly cheap price of £50!

I have only had it a couple of days and the brilliant thing about it is that a lot of the things on it are similar to what I am already used to.

The only criticism that I have is that the instruction manual is not detailied enough. It has no examples to work from and it only tells you what each function does. It does not tell you how to access the more detailed parts of the system. And I now have to use a mouse, which takes some thinking about and I it is driving me mad at the moment.

Brian Pratt, Tidworth.

"Keep 'em coming"

If any of our readers do not include the cost of the cover discs in their subscriptions, the LSAVER program in the last disc makes it well worth doing so. And if theu play Chess or go in for MDA things, there are great bonues.

I put the LSAVER into my LocoScript Start-of-Day disc and it is great! Keep 'em coming! Harold Simmons, Wallingford.

a selection from our mailbag

"Can't say I'm sorry to say 'bye' at last to Mr Gates' non too clear Windows!"

Since purchasing my PcW 16 last year at the wonderful price of £125 from a local branch of Currys I have been very pleased with its performance.

Due to the recent on-set of an incurable sdisease and a forced 'downsizing' of my interestes, I have passed my more sophisticated PC over to my wife, Lorna, who uses it daily for tracking household accounts, writing our main correspondence and also for her extensive interests in graphics, crosss stitch pattern design and family history.

And I have made the PcW 16 together with my trusty old HP Laserjet 4L, my main writing tool. Can't say I'm sorry to say 'bye' at last to Mr Gates' non too clear Windows!

The PcW 16 is such a very friendly machine in use and Rosanne seems to be a brilliant OS if only the developers would take a risk on it.

Perhaps now, with the support that the PcW 16 will be receiving from John Elliott's CP/M clone the ball in this important area might start rolling again.

I for one soon hope to purchase copies of CP/M and Basic, a Basic tutor and possibly Morse Code Tutor from SD Micro and sample again the delights of an 'old fashioned' but tried and trusted OS. I might even be tempted to write a few programs myself.

I do have some rusty knowledge of MS-DOS but have little idea how this OS compares with CP/M. Frank Wellstead, North Tyneside.

"Appalling"

Last week I received my first issue of PCW Today. I have already found many tips that make it well worth while.

I am now looking forward to the next issue and learning more about the PcW 16. The marketing of this lovely machine has been appalling. I would have had one long ago had I known about it. My old Amstrad was going along on a wing and a prayer.

Like Mr. Ken Pople of Bristol (Letters page) I bought the last PcW in the store and it too was minus its manual.

I did manage to get a rescue disc after quite a lot of effort but have been unable to trace anywhere to buy a manual. I would love to have the address of the supplier if possible.

Edna Davison - Beverley.

"PCW Today is my only lifeline to Amstrad"

I was very happy when I in July out of the blue sky I suddenly received the two latest copies of *PCW Today*; as a matter of fact I sadly thought you had folded!

The Amstrad situation in Denmark is rotten.

When an old member of the cancelled Danish Amstrad Club died in Spring I got three machines for just collecting them. I gave 2 away and kept one for spare parts.

I have an 8512 stuffed with memory, Loco 4, extern Pinboard - drive. Moonstone 2 in 1, Lindex, Ansible, etc. - and of course I'm 100 per cent satisfied.

I'm an ex - journalist and press photographer since 1945, age 82, so I fit nicely into your readers profile!

In 1998 I bought an elderly PC with LocoScript and Locolink and till now I've been too lazy to start it up. *PCW Today* is my only lifeline to Amstrad and the few distributors left.

Please carry on!

Mogens von Haven, Denmark.

"Continuing education"

I must congratulate you on an excellent magazine that provides me with up to date information on PCW developments, news about new programs and program reviews, not to mention the many very good articles that are written in a very easy to understand way.

This has encouraged me to consider the magazine as a form of continuing education and I look foreward to every issue

When I first bought my Amstrad 9512 I bought it to run a family history program which was my hobby and still is, but since that day I started to learn wod processing and have started to develop skills in running other programs and acquired a 9256 so I feel I can now say that I have got two worthwhile recreational pursuits.

I do not think that I will need a course or counselling for retirement when the time comes thanks to everyone and the friendly help and service I have recieved from your advertiser's.

Arthur Wilkins, Nelson.

pcw sixteentesting out the new CP/M emulator

put to the test

John Elliott's new version of CP/M for the 16 comes under scrutiny from Anthony Velate of the Crawley PCW Club

John Elliott's ingenious program persuades the PcW 16 to ignore Rosanne and behave like a CP/M machine

Since I first tried the CP/M-2 implementation it has been upgraded to CP/M-3 (or plus), the version suitable for most PCW programs. The latest disc (v0.9.1) also has a selection of CP/M's useful commands updated to Nov. 1998, all of which run as they would on the original PCWs.

John has never claimed that his software could anticipate all the tricks used by programmers to make their PCW programs work faster, particularly their use of machine code to by-pass CP/M and directly access screen memory or drives. Because the PcW 16 screen is mapped in memory in a completely different way, running such programs is liable to cause problems.

Even when programs use legitimate CP/M (or BASIC) procedures to access the PCW hardware, the fact that the screen size is different on the PcW 16 results in display distortions such as wrap-around or cut-off at the edges.

For these reasons, PCW programs based largely on graphics or using elaborate layouts (rather than simple text) are those most likely to distort displays. The implementation was tested using a number of programs written for the PCWs; the results were as follows.

ROCKET (v1.03), the spreadsheet, simply failed to load into the PcW 16, causing it to hang-up completely. Although switchingoff at the mains brought it back to life again with Rosanne intact, John's program was lost and had to be reloaded from scratch.

This crash may have resulted from Rocket's trying to access memory directly.

SUPERDOS (v2.01), the CP/M front-end program with a LocoScript-like management screen (similar to 2-in-1), produced the message "unexpected version of CP/M" followed by a return to the A> prompt.

Perhaps it looks first for the actual CP/M program name (J25CPM3.EMS etc), which is not used in the implementation.

BACKUP (v1.6), the "Disc Doctor's" backing-up program, ran as far as the opening screen, and might have been raring to go further, but as it would not respond to its usual function-key presses, it could not be made to

work. This is perhaps because Backup redefines the function keys for its own purposes.

ROOTSpcw93 (v97.1), the genealogical program, successfully loaded its suite of 17 BASIC programs amounting to 200k, together with my own 220k family data file.

It seemed to function normally, although some screen displays were jumbled due to screen-limited word-wrap - but the data was

All its many search and sort modes worked well, and the various tree diagrams and lists were all printed out perfectly on a Canon

Unfortunately, attempts to amend existing records of ancestor's data, or to create new records, failed because cursoring between item slots was too erratic

Also, pressing "Enter" caused existing entries to duplicate themselves in unexpected places, thus making it impossible to update or revise an existing Roots data file.

However, the implementation does enable such a file to be studied on the PcW 16, and it also permits printing-out of the lists and trees that are available.

LOTTERY2.BAS, my own BASIC lottery-number selector, ran well and produced printed lists of random entries. However, each time it was run from scratch it produced the exactly the same sequence of entries.

This indicates that its randomising peeks at the PCW's internal clock fails to work with the very different memory layout of the PcW 16.

BATTLSHP.BAS provided a good game of "Battleships", despite the tables of "ships still afloat" on each side of the grid being partly cut-off by the screen edges.

HANGMAN.BAS ran well, but with some distortion of its simple gallows display.

SOLIT.BAS set-up its solitaire card display with edge distortion due to wordwrapping. However, it could not be played because the cursor could not be aligned with the grid and the nominated "jump" keys did not function at all.

I also tested out the programs on PCW Today Cover Disc 3.

PCWTODAY.COM This introduction and means of access to the Cover Disc programs actuated the drive motor briefly then caused a

complete hang-up. This was not surprising because it is a multipart program that is "heavy on graphics".

FREECELL.COM, a card game written in BASIC 98, also briefly ran the drive but did nothing else. When ENTER was pressed the A> prompt returned showing that CP/M was still available

ULTIMATE.COM, a graphics version of "Ultimate Bandit", got as far as its title line "Slot Machine v.1.2 (etc)" before causing a complete lock-up.

KONG+.BAS, a platform version of "Donkey Kong", caused the screen to flash with vertical lines on the right-hand side before becoming completely white. This was followed by a return to the PcW 16's opening screen, indicating that the CP/M implementation had been lost.

SANTA.BAS, a seasonal maze game, opened with "Storing - please wait", followed by a clear grey screen and a locked-up machine

UXB.BAS, a version of the classic snake game, began with "Please wait - loading", then crashed the machine.

FILEPR.COM. a utility for printing-out ASCII files, merely produced the message "Out of RAM at PC=1235".

It must be concluded that John Elliott's program is a near-miraculous attempt to make quite different computer systems function in the same way. CP/M's commands and utilities transfer most effectively and simple BASIC programs manipulating words and numbers run with few problems.

The implementation fails where physical differences, such as screen sizes, result in distorted or clipped graphical displays.

It is also defeated by programmers who have been too clever in taking short cuts using machine code, in by-passing CP/M to access drives and memory directly, or in setting-up unusual key or function definitions.

Despite these limitation, this implementation is still the only way of getting even a small fraction of the existing CP/M programs to function on the PcW 16, and John is to be congratulated on his attempt.

This is a revised and extended version of an article originally printed in the Crawley PCW Club Newsletter.

26 • PCW Today • Issue 13

pick up a bargain

the classifieds

PCW 10 c/w LocoScript 3 & Spell, 1Mb RAM, B drive (ext) & AtoZ covers. All original manuals and discs. Dot matrix printer (c/w continuous paper feed & box of paper (both unused). Locofont 'Display' and 'Decorative' fonts £40. (Buyer collects) Tel-01508 520278.

PCW 10 software "PCW Toolbox", "Compleat Utilities", Touch & Go" typing tutor, "PCW to DOS" conversion, "PCW Checkup". RP Hill "Basic98" (& compiler) V1.01 & V 2.0, "PCW Target CP/M" by Geoffrey Childs on disks and binder. £30/all or £20 if with PCW10 also on this page. Tel-01508520278.

"PCW PLUS" Issues - No2-63 & 72-124 (the last one) £10 or free if with PCW 10 also on this page. Also CANON BJC210c Bubble Jet printer c/w Loco Printer Support Pack (PCW 10) & Fonts - £35 or £25 if with PCW10 also on this page. Tel - 01508 520278. (Buyer collects - Norwich area)

PCW 8256 with 768k RAM, 3.5" external drive, LocoScript 4 with fonts and pictures. Software includes MicroDesign 2, Spreadsheet, Supercale 2, MiniOffice Professional Plus, all manuals and discs. Quantity blank formatted 3" and 3.5" discs, 16 PCW Plus magazines complete with Citizen ABC colour printer £150. Tcl & Fax Sylvia Rolph 01295 750342.

CAl.1. for help with LocoScript, CP/M or MicroDesign 2, or just for a chat about PCWs in general. Mon-Sat 2-8pm. Or write to: Kathleen Thorpe, 22 Haddon Way, Long Eaton, Nottingham NG10 3EE. Tel: 0115 9720114

FOR SALE Amstrad PCW 8512 with printer, dust covers and 3 spare ribbons - a variety of software including LocoScript 1 - 4, LocoSpell, Mini Office Professional, Indexer, Personal Ancestral File, Composer's Pen 2... all with manuals, 20 x 3" discs. For complete list phone Ron Edwards 01733 267908.

3" DISCS for sale. 30 - Maxell CF2/-D, 7 - Amsoft CF2DD, 4 - Amsoft CF2. All formatted and verified, some very little used. £1.95 each. Also User Guide and BASIC mana=ual for PCW8256/8512 - £5.00 each. All plus p+p. Contact 01246 590372.

AMSTRAD PPC 640 Portable Computer with modem for sale. Complete with B&W monitor and Olivetti Printer. All in full working order. Includes programs disc and manual. £35.00 plus delivery. Contact 01246 590372.

PCW 8512 printer, 9 pin for sale, complete with tractor drive attachment. £10.00 plus delivery.

Contact 01246 590372.

WANTED: Instruction manual for Foreword word pre-processor. Telephone 0121 426 5636.

WANTED "Locolink for Windows" for a PCW 9512+ (therefore a PCW with a 3.5" drive). Contact Richard Sewell 01543 258497. Will accept Locolink for Windows for a PCW 3" if necessary.

PCW 9512, daisywheel printer, extra 512k RAM, mouse, LocoScript 3, LocoMail, LocoFile, LocoSpell, user manual, master discs, printer support disc, eight 3" spare discs, disc 30x, also MicroDesign 2 software £50 cash 0121 6038371 Birmingham.

GENTREE 11 genealogy program on 3.5" disk with manual; Will Writer will writing program on 3" disk with manual and blank will forms on parchment paper, cost £80; 2 no. 9512 printer armatures; Touch 'n' Go typing tutor on 3.5" disk, sealed; plus others. Offers. Tel: Leeds 0113-267-1393.

FOR SALE: Amstrad 9512+ c/w Daisy Wheel Printer and Pinboard 3.5" 'B' Drive, LocoScript 3 and 4, LocoFile, LocoMail, All Manuals and Master Discs. £80.00 o.n.o. Citizen 120D Printer with spare ribbons, £40.00 o.n.o. Epson LQ100 Printer with spare ribbons, £40.00 o.n.o. Amstrad Notcpad NC100 with Lapcat and memory cards £35.00 o.n.o. 01202 672399

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THANKYOU to those who responded to my ad in PCW Today seeking text adventure and board games. I had a few replies and now have a small but much appreciated collection. John Johnson, Leeds, 0113 2671393.

PCW 16 for sale, complete with manual, mouse, and start-up disk, little used. £70.00. Also 2 PCW 8256s for spares or repair, will split. John 0113-267-1393.

FOR SALE: Amstrad PCW 8512 with Hewlett Packard DJ printer 520 - Twin 3.5" disk slots - hand held scanner - Loco 4, LocoSpell, Mailmerge, MicroDesign 3. All instruction books and games. £100. Bill McCoy 01704 877109.

FOR SALE PCW 9512 with 3.5" and 3" drives. Rampak. LocoScript 4 master discs and other software. £100, Carriage extra. Will split. 01225 706533, Wilthsire.

PCW 9512, 512k, keyboard, daisywheel printer. All immaculate but not currently working. What offers? Tel: 0181 4671166.

CP/M+ 3.5" master disc v2.15 for PcW9512+/ PCW9512 with 3.5" A drive - £12. Mallard BASIC (Locomotive Software) - £9.3" used formatted discs (unlabelled) - £1.50 each (max order of 10), 3.5" 720k used formatted discs (unlabelled) - £3.50 for 10. Send an SSAE for a full list. Richard Avery, 60 Pitreavie Drive, Knights Manor, Hailsham, East Sussex BN27 3XG.

PCW 9512 with Daisywheel Printer, etc., for sale in the Selby, North Yorkshire area. Ring 01757 702384 or e-mail simmons@barlbyvicarage.freeserve.co.uk

FOR SALE 2048k Flash Drive for 8256-8512. 3.5" disc, £35 as new. 01270 587759.

BOOKS (Incl postage): PCW 8000 Book 1 (LocoScript/CP/M) £7. PCW 8000 Book 2 (BASIC Manual) £10. Program Your PCW (Ian Sinclair) £9. L. Helsby, tel: 01959 573072.

FOR SALE: (Incl postage) AMX Mouse £15. Centronics/Serial Interface £15. Loco 3 - 3" -(PCW8256/8512 - 5 F Class fonts) - 98 master discs) £18. MicroDesign 2 (4 x 3" disc set) - £10. Sage (fully boxed with manuals - 3") Popular Accounts & Payroll £9 each. Tel: 01959 573072.

PCW 9512 3" and 3.5" external, 512k power pack, Keymouse, daisy wheel printer, LocoScript 4.11, CP/M 2.15, MD3, Super Labeller, MD3, RoutePlanner. Mini Office, various graphics, spare discs, plus LocoScript 4 and Mini Office manuals. £130 (will not split) Peter Collins 01773 745229 (Derbyshire).

WANTED: Installation disk for GEM II 40 Meg Hard Disk (for PCW 8512). Telephone 0121 4265636.

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pcw world

the big question

cp/m 2000

Can 8-bit computing survive in the 21st Century? New boss of LocoScript **Stephen Denson** thinks it has a chance...

As someone who has been involved with 8-bit microcomputers since their inception in the early 1980s, and who continues to support the Amstrad variety, I sometimes think that I am living in a time warp.

After all, the battle for computing supremacy was won long ago by certain American Corps in favour of the mighty PC. And whilst, ten years ago, one might still be able to argue that an 8-bit home computer could do the same job as a 16-bit business machine this view is no longer sustainable. To run all the latest mega-applications, to surf the net rapidly, to play CDs or DVDs and so on, one simply has to have a Pentium PC, or maybe an iMac.

Defending the 8-bit

And yet this is precisely my starting point for defending the 8-bit Amstrads when people express amazement that anyone could still be using one, let alone (in my case) running a specialist software house catering for them!

If you don't have to perform all those hi-tec tasks then a PCW for example is still an efficient computer for everyday use.

When word processing you can produce documents on an inkjet printer of equal quality to PC output. You can also file information, run spreadsheets/accounts and play games.

Whilst you won't find Lara Croft

running around the screen on an Amstrad you can yet enjoy many gentler, more intellectual pursuits and pastimes. I still enjoy blasting aliens in an old version of Space Invaders but I don't like the idea of shooting three dimensional human beings in modern mega-games. Somehow it crosses the barrier between fantasy and realism.

Amuse the kids

A lot of people aren't interested in games, full stop, though they might buy one or two to amuse the kids/grandkids in the holiday season. For them, their Amstrad computer doubles as a word processor for bashing out pages which look smarter or more business-like than hand written letters, plus the fact that they can be automatically spell-checked as well.

I think it was Brian Watson, erstwhile editor of the now-defunct 8-Bit magazine who coined the phrase 'appropriate technology' to justify the continued use of 8-bit computers well into the 1990s and now post 2000.

Many of us believe that using a 400mhz PC equipped with all the trimmings to carry out simple computing tasks is as ludicrous as driving a Ferrari to the shops. As with the latter marque's famous logo, it really is a case of horses for courses. PC magazines make me feel uncomfortable with their macho

editorial exhorting us all to 'upgrade at all costs' every six months or so. They never advise 'well if your PC is working well and does a good job, keep it - don't worry if you haven't got the lastest peice of software/hardware'.

You'll get left behind

They are more like to say 'keep pace with the industry or you'll get left behind' and might as well add 'and people will laugh at you.'

People actually like a bit of stability in this uncertain world. If they buy a TV or a fridge they expect it to last at least 5 years. No so with PC computers, however. I recently re-read an old PC mag from a few years ago. One grand advert offered 'future-proof' PCs claiming they their 486s could be expanded to accomodate all forthcoming hardware and software.

Why the standard 40mb hard drive could be ramped up to a HUGE 400Mb! (today's beasts average 10 Gb+). There was no mention of CDs, DVDs, the internet et al. So who knows where the market will be in a few years time?

Mousing around

Nor do I much care, to be honest. I actually prefer CP/M and DOS to Windows 95/98/2000.

After all, if I wanted to chase a mouse around all day, I'd become a cat!



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programming

a mastermind game in logo

mastering logo

Follow Fred Manders' simple tutorial and write your own version of the classic game 'Mastermind' in Logo

This LOGO version of MASTER-MIND uses the digits 1 to 6, instead of coloured pegs. It is more of a number-crunching than a graphics program, but it does use LOGO's graphics capabilities to draw the outline of the board.

It will only accept 4 digits as input and uses character 188 'the bullet' to indicate direct matches and character 187 (the open circle) to indicate an indirect match.

As is usual with LOGO programs it consists of a number of 'procedures', which call each other as required. Enter the complete program and save to disc before running it with - start [RETURN]

The semicolons and anything following them on the same line are 'remarks' like REM in BASIC and are ignored by the LOGO interpreter. You need not type these in but you might prefer to, as a reminder of what the procedures do. The procedure 'rand' does the same job as the following line in BASIC - FOR x=1 TO 4:

a(x)=INT(RND*6)+1:NEXT x

The procedure 'randomize' ensures that the random number generator produces different numbers each time it is used.

I got this from a book soon after I bought my PCW, so please don't ask me how it works.

All I know is that 'nodes' is a LOGO primitive, which evaluates the available workspace and, consequently varies according to what is in memory.

The line 'if not count :in = 4 [go "inp]', in the 'input' procedure, refuses to accept an input of more or less than 4 digits and the next 4 lines ensure that only digits in the range 1 to 6 are accepted.

Not having line numbers, LOGO uses 'labels' to define jump destinations. As you will see, in this case 'go "inp' sends program operation back to the beginning of the procedure. For the purpose of the validity checks in 'input' the variable 'in' is copied into 'sn'.

This enables it to be used in the validity checking routine, to check each digit in turn. The 'make "sn bf:sn' chops off the first digit of 'sn' so using it 3 times ends up with only the fourth digit left. 'bf' is a LOGO primitive, which means 'but first' or 'all but the first digit'. After these checks the variable 'in' is still unchanged.

The main variables are -

a1, a2, a3, a4 The four random numbers generated by the computer.

s1, s2, s3, s4 Copy of the above for use when checking for a match.

n1, n2, n3, n4 Player's input, put into a form for comparing with s1 to s4.

(These three groups of four variables are much like array variables as used

in BASIC programs. Note the use of 'fput' in their creation, putting the letter first, followed by the number in 'z' (the loop counter)

to make the name of the variable, which then has a value assigned to it.)

in Players input, as read from the keyboard.

sn Copy of above for validity checking.

wp, bp White and Black pegs, indicating indirect or direct matches.

y, z Counters, used in the program loops ('repeat's).

k Equivalent to INKEY\$ in BASIC

c The number of 'nodes' in the 'randomize' procedure.

row Row counter, used in the
'setup', 'play' and 'input' procedures.

Notice how, when 'setcursor' is used to position the cursor with two numbers, they are put in square brackets with a space between them. But, if one of the parameters for the cursor position is a variable, they are preceded by 'se', which treats them as 'words' and puts them into a 'sentence'.

In the 'finish' procedure I have begun the last line with a semicolon, so that the line is treated as a remark and ignored by the LOGO interpreter. When you are satisfied that the program is working properly, delete the semicolon at the beginning of this line and save it before you run it again. This will make the program erase itself from memory, when you exit from it, leaving room for another program.

programming

a mastermind game in logo

to rand; put a random number (1 to 6) into the variables a1 to a4 repeat 4 [make fput "a:z (random 6) + 1 make "z:z+1] to setup ;set up game board type char 27 type [f]; disable cursor blob setcursor [101] pr [MASTERMIND] setcursor [10 3] pr [.....?.?.?.....] setcursor [10 5] pr [10 - + + + + - ::::] make "row 7 make "z 9 repeat 9 [setcursor se 11 :row type :z type char 32 pr [-++++-::::]pr [] make "z :z - 1 make "row :row + 2] ; [NDENT setcursor [0 26] rv pr [Nearly Ready] nv type char 27 type [e] ;enable cursor blob to randomize initiate random number generator make "c nodes repeat last :c [if random 2 = 2 []] to input ;get player's 4 digits from keyboard label "inp setcursor [0 26] erpe pr [Enter 4 digits..] pr [] pr [In the range 1 - 6] bell setcursor [16 26] make "in rq make "sn :in type [CHECKING VALIDITY] if not count :in = 4 [go "inp] ;ensure 4 digits are entered if :sn < 1111 [go "inp] if :sn > 6666 [go "inp] make "sn bf:sn if:sn < 111 [go "inp] if:sn > 666 [go "inp] make "sn bf :sn if :sn < 11 [go "inp] if :sn > 66 [go "inp] make "sn bf:sn if:sn ≤ 1 [go "inp] if:sn ≥ 6 [go "inp] setcursor [0 26] erpe rv pr [* Please Wait *] nv setcursor se 15 :row make "z 1 repeat 4 [make fput "n:zitem;z:in make "z:z+1];put into n1 to n4 (type:n1:n2:n3:n4) setcursor se 25:row to play ;play game & offer another game setup randomize rand make "row 25 repeat 10 [make "row :row - 2 input mark if :bp = 4 [go "X]] label "X :End of game routine setcursor [15 3] (type :a1 :a2 :a3 :a4) bell bell setcursor [0 26] type [Another game? Y / N] make "k rc if :k = "y [setcursor [0 26] erpe play] [finish]

to mark ;check player's entry for direct/indirect matches make "bp 0 make "z 1 ;al to a4 are copied into s1 to s4 for comparing with n1 to n4 repeat 4 [make fput "s :z thing fput "a :z make "z :z + 1] make "z 1 repeat 4 [if thing fput "s :z = thing fput "n :z [make fput "s :z 10 make fput "n :z 11 make "bp :bp + 1] make "z :z + 1] ;INDENT repeat :bp [type char 188] ;print black pegs (direct match) if :bp = 4 [bell go "XX]; finish if all correct make "wp 0 make "z 1 repeat 4 [make "y 1 repeat 4 [if thing fput "s :z = thing fput "n :y [make fput "s :z 10 make fput "n :y 11 make "wp :wp + 1] ;INDENT make "y :y + 1] make "z :z + 1] ;INDENT repeat :wp [type char 187] ;print white pegs (indirect match) label "XX end to rv; set reverse video type char 27 type [p] end to nv; set normal video type char 27 type [q] to bell; beep 5 times repeat 5 [type char 7] to erpe ;erase from cursor to bottom of screen type char 27 type [J] to start; clear screen and draw board outline type char 27 type [0] ;disable status line fs cs ht ;set and clear full graphics screen & hide turtle seth 0 pu setpos [-118 -154] pd; move pen to starting position fd 414 lt 90 fd 170 lt 90 fd 414 lt 90 fd 170 ;draw rectangle ts :set full text screen play ;call the 'play' procedure end to finish setcursor [0 26] rv pr [Goodbye. I hope to play with you again soon!] nv recycle ct; short delay before clearing screen type char 27 type [1] ;enable status line ;erall ;erase all procedures and variables

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jargon buster focus on software

friend or foe?

Is your computer user friendly enough? Kathleen Thorpe takes a look to see what exactly makes software friendly

We often hear the phrase 'User Friendly ' in relation to computers and the software that's available for them.

Although we live in a 'user friendly PC' dominated world and those of you who have been involved with computers in general, and PCWs in particular, are already well acquainted with user friendly programs, I am fully aware that quite a few people are newcomers to computing and may wonder what makes a computer or a software package 'user friendly '.

The concept of user friendliness is to make the product as easy to use as possible, enabling the person using it to quickly learn all the little 'ins and outs' that might be involved.

For example, one of the most unfriendly programs that the PCW uses is CP/M itself. The A> prompt doesn't give the first time user any indication of what to do next.

Some people have suggested that CP/ M is an abbreviation for 'Complete Perishing Mystery' or 'Can't Program Mine'!

This is where a 'Graphical User Interface' (GUI) like The Network from Creative Technology, can be useful.

This way all your CP/M programs and utilities are represented on screen by a small pictorial symbol call an ' Icon ' which has a CP/M command attached to it rather like using a 'Windows' application on a PC.

Mouse users only need to click on the icon to launch the command. Even if you don't use a mouse, a special combination of key presses (sometimes called a ' Macro' can be pressed to activate the command.

Those of you who use a PcW 16 which has its own built in GUI, MicroDesign 3 (also available from Creative Technology) or some of the software written by PD Blake, will already be

familiar with this as they contain commands which can be selected either by a click of the mouse or by combination of

Other unfriendly programs are those that don't tell you what they are doing. Especially the ones that have long unexplained pauses that make you think the PCW has crashed, only to leap into action as you are about to press [SHIFT]. [EXTRA], and [EXIT] to reset the machine.

It can also be a pain if you need to load a file into a program that doesn't have a directory (DIR) option, as you have to make a note of the names of all the files you will be using, so that you can access them from disc.

LocoScript with its 'Disc Management Screen' (where you can see all the files on your disc in all drives) and special ' Function keys 'that activate drop down menus and commands linked to special keys such as 'CUT', 'COPY' and ' PASTE 'etc., is a good example of user friendliness at its best.

It had been said that the ideal programs should be so user friendly and intuitive to use that a manual shouldn't be

Unfortunately we don't live in an ideal world and we have to accept the fact that whenever we buy a new software package, we are going to need instructions of some kind to help us get started. If there is a manual it too should be user friendly, if it isn't, the program is unlikely to be so.

Manuals vary in type, ranging from a file on the disc giving brief instructions of how to use the program, to a thick spiral bound book with detailed notes, pictures and screen shots.

Most Public Domain software usually comes with the former, but even here there can be huge differences in the depth of information given. Some manuals

assume that you have an intimate knowledge of the finer (and more obscure) points of the CP/M operating

If you've reached page three and haven't understood a word, chances are you probably might never use that program. Which isn't too much of a problem where PD software is concerned, as by its very nature of being inexpensive to buy, you won't have lost much.

If on the other hand you paid top dollar for a commercial package, you will feel compelled to get to grips with the program itself, and its manual, no matter how complicated they might be. Fortunately the majority of programmers are only too aware that the success of their software depends on its user friendliness and they strive to make their programs and instructions as easy to use as possible.

So, if you are about to spend some of your hard earned cash on a new software package, to make sure you are getting value for money ask yourself the following questions.

- 1. Will it do exactly what I want it to do?
- 2. Are there any 'extras 'I will probably never use, that are pushing the price higher?
- 3. What kind of manual (if any) will I
- 4. Are the program and its instructions user friendly?
- 5.Is there likely to be technical support available afterwards?
- 6. Will there be the possibility of upgrading to a later version at minimal
- 7. Are there alternative options which costs less?

It's probably a good idea to 'shop around 'looking at the different packages available. Weigh up the 'pro's and con's' of each one, taking into consideration not only the cost effectiveness, but also ease of use.

32 • PCW Today • Issue 13

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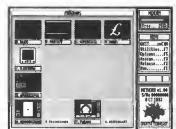
MD3 is a powerful program, but it is also simple to learn: PCW Plus Magazine gave MD3 five marks out of five for "ease of use" in their review. The MD3 package comes complete with a comprehensive Beginner's Tutorial, and we also provide a Technical Support hotline free of charge between 4pm and 7pm every weekday.

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 - KeyMouse has special modes for LocoScript, Protext and CP/M. It is especially useful for CP/M programs which use the cursor (arrow) keys.



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MD2-MD3 Upgrade (Registered Users)	£29.95
The Network (requires 512Kb memory) †	£25.00
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MD3 Extra Fonts Discs (each)	£16.00
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*Not compatible with CP/M v1 4, v2.1 & v2.9	

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CREATIVE TECHNOLOGY

making the switch

conversion tactic

PcW 16 pro Geoff Braddy has written this handy guide to help you make the switch between LocoScript and the 16

Anyone who has grown used to the earlier PCW classics, such as the 8256, the 9512 and the PCW10 and has now changed to the PcW16 might find some of the terminology difficult to get used to. Likewise if you are making the swicth from Roseanne to LocoScript, the lingo may be baffling.

This dictionary translates language used in Locoscript 1, 2, 3 and 4 for the 8000, 9000 and 10 series machines into 16-speak.

The words in bold are as they can be found in LocoScript, beneath is their equivalent in the 16 word processpr.

abandon edit

abandon document / revert to saved alt + doc (alt + shift + doc/page)

control + home alt + page

shift + page up

alt + tab

see indent tab

bold

bold

can key

red key with cross

centre

centred

no single equivalent

change text style

change layout

set paper size / set margins (in document menu)

character pitch

this is automatically set to proportional pitch, unless you select "numbers in columns" (under "change text style")

character size

point size

characters

insert characters

clear all tabs

all tabs but one can be cleared

clear tab

delete selected tab

copy

copy selection to scratchpad

copy file

copy file CR extra

space above and space below (under "change

paragraph format")

create new document

start new document

cursor (shift + cursor)

control + cursor

cut

delete selection

cut and paste

cut selection to scratchpad, then paste from scratchpad

delete

delete

disc management

file manager

doc (go to end of document) control + end

doc page key page down key

double spacing double line spacing

double strike no equivalent

double width

no equivalent

draft quality

draft

drive M

cabinet

edit document

edit stored document

editing text screen

partly document menu partly edit menu

no equivalent

edit a paragraph style

end of line (EOL)

end page here

insert page break (insert menu)

erase file

delete file

exchange

replace text

no equivalent export document

file

find key (exch/find)

find text (under edit menu)

find page

no equivalent, but you can find a marker in the text instantly with the mouse - see user

manual p.58) finish edit

stop

footers

footers

format

format

group

folder

headers

headers high quality

quality

highlight text

select text

ignore case (under find text)

match case

no equivalent

import document

indent tab

left indent (under "change paragraph format")

indenting first line

first line indent (under "change paragraph

format")

no equivalent

several items in the insert menu have no

equivalent

insert text

insert another document

inspect document

no equivalent

italic

italic

pcw sixteen making the switch

	paste	view spaces (under view menu)
J	paste from scratchpad	show state of symbols
justify	no equivalent	view tabs and returns
justified	paragraph style (use, edit and store a	size
К	paragraph style)	change text style (in document menu)
keep	phrases	spell check spelling
no equivalent	see show phrases	just forwards from here
no equivalent	point size	check from cursor
L	use larger font / use smaller font / point size	single word
last line of page	print all of document whole document (under document menu)	look up current word
insert page break	print document	all of document
last page number	print document	check whole document
no equivalent	print cocument	no equivalent
layout	current page (under print document)	skip word
see new layout	no equivalent	user dictionary upkeep
left align	print preview	add word
left aligned	print preview	standard
line (line/EOL key)	Q	no equivalent, but Times has more similari-
home	quality - see draft quality, high quality	ties than Swiss
line pitch	quality see araji quanty, mgn quanty	no equivalent
no equivalent	R	store paragraph as style
line spacing	recover from limbo	style
line spacing (under "change paragraph	no equivalent	change text style
format")	relay	no equivalent
LX Roman	green key with tick	style name
the nearest equivalent is Times	rename file	subscript
LX Sans Serif	rename file (under file manager)	subscript
the nearest equivalent is Swiss	replace	superscript
	exchange	superscript
M	- reverse	
M drive	no equivalent	T
cabinet	right align	tab
margins	right aligned	tab
set margins (under document menu)	no equivalent	template
move file	right indent	template
move file (under file manager)	Roman	template.std
moving the cursor (shift + cursor)	the nearest equivalent is Times	make new template from document, or
control + cursor		choose a template
A4	S	
<u>N</u> .	Sans Serif	U
new layout	the nearest equivalent is Swiss	underline
partly under "change paragraph format",	save and continue	underline
partly under the document menn	save (F8 key)	unit
0	save and print	marker (see "selecting text" in user manual)
<u>O</u>	two separate operations, save and print	no equivalent
offset	document	shift + centre button of mouse (lets you adjust
no equivalent	no equivalent	settings in metric or imperial)
D	save as	no equivalent
page key	no equivalent	use a paragraph style
control + page down	seratehpad	V
page layout	set left margin / set right margin	verify disc
set margins	set margins	no equivalent
page number	set simple tab	но едиглаген
automatic page numbering	add new tab (under style menu)	W
no equivalent	set tab to every:	
page up, page down	change tab positions	wild card (under find text)
page up. page down	show phrases	no equivalent
set paper size (under document menu)	store selection as phrase	word key
para key	show state of codes	control + > (right cursor key) word underline
her a well	not necessary as the PcW 16 is WYSIWYG	word annaer mile

show state of spaces

no equivalent

no equivalent

your essential guide to pcw firms

company locator

Aladdink	0131 2700538
16 Springwood Park, Edinburgh EH16 6JL. Fabric and film ribbon recycling and re-inking. They also supply DIY re-inking packs.	
Amstrad Consumer Electronics Plc. Brentwood House, 169 Kings Road, Brentwood, Essex CM14 4EF. Manufacturers of the PcW 16 and every other PCW on the planet.	01227 228888
Anlaby Computer Services. 7 North Street, Anlaby, Hull HU10 7DD. Drive repairs and PCW-PC disc conversion.	01482 650648
Ansible Information	01424 720457
A-Z Computers	0181 7441834
Bernish Business Machines 14 Lower Richmond Road, London SW15 1JP. Repairs and upgrades to all Amstrads and PCW - PC disc conversion.	0181 7853208
Caltronics 14 Blakeney Crescent, Melton Mowbray, Leicestershire Suppliers of the "Freddy" disc drive.	
Comsoft	0141 5544735
Christian Computer Art	01954 210009
Composit Software	01952 595436
John Craggs. 60 Belmont Road, Chandler's Ford, Eastleigh, Hampshire SO53 3FJ. Writer's Desk software for all PCWs.	01703 364821
Creative Technology (MicroDesign Ltd). 10 Park Street, Uttoxeter, Staffs ST14 7AG. MicroDesign3 range, Keymouse, hand scanner. PcW 16 software.	01889 567160
Dansoft	0181 8769251
Dave's Disc Doctor Service	01892 835974

directory software hardware and services

David Landers	01665 570662
Brinkburn Gardens Cottage, Longframlington, Morpeth NE65 8AR. If you use LocoScript and LocoMail. Instant Recall 1 and 2 add a huge range of new features to the family.	
Derrick Gaskin	
Garrison Computers	01772 701248
Ideal Value Products	01702 551618
LocoScript Software. See SD MicroSystems.	
Mapej Meadow View, Quinta Crescent, Weston Rhyn, Oswestry, Shropshire SY10 7RN. They'll transfer data between PCWs and just about any other computer you'd care to think of.	01691 778659
Midas Charity Ink. "Kynance", 5 Nelson Road, Brixham, South Devon TQ5 8BH. A printer ribbon re-inking service where the profits go to charity.	01803 853144
Robert Nisbet	01865351448
Office Land. Unit 13c, Sunrisc Business Park, Blandford Forum. Dorset DT11 8ST. Specialists in printer consumables, also some software and accessories.	01258 453437
Pinboard Computers. Unit 9, Bondor Business Centre, London Road, Baldock, Herts SG7 6HP. The best-known supplier of disc Drives, Pinboard also sell complete PCW systems.	01462 894410
PD Blake	01482 864230
Protext Software. Harrowden, 39 High Street, Sutton-in-the-Isle, Ely, Cambridgeshire CB6 2RA. The second base of Protext and the home of Brian Watson's 8 Bit magazine.	01353 777006
Rascal Software. 29 Fell Croft, Dalton-in-Furness, Cumbria LA15 8DD. Producers of Chordmaster, the guitar package for your PCW.	
SD MicroSystems/LocoScript Software PO Box 99, Thetford, Norfolk IP24 1NA. A massive range of original software including the full Loco range. Also hardware and the famous 3" drive reviver kit.	07000 736427
Trading Post	01952 462135
98 Software	

langford

limbo dancing

I'm an addict

Programmer David Langford has the software disease.

You always think you can give it up, take the cold-turkey cure until at last the craving goes away, but again and again there's a dread tendency to backslide. Just one more tiny indulgence won't do any harm

I'm talking about programming of course. A friend once warned me in menacing tones: "Software is a *disease*. Never get into software."

He spoke from experience, having written his own word processor from scratch in BASIC. Although I laughed ("They laughed when I sat at the keyboard, but then I began to hack the operating system!"), it was already too late.

I'd invested in Borland Turbo Pascal 3.0, which had begun to affect the punctuation of my very thoughts. It is a bad sign when you end sentences with semicolons.

Turbo Pascal was a revelation. It created .COM program files quickly and easily, and came in different flavours for all the computers I was using in the mid to late 1980s. It worked with my Apricot, PC and there was even a CP/M version for the PCW.

Our infamous indexing program AnsibleIndex used all three, starting as an add-on for Apricot SuperWriter, mutating dramatically to work with PCW LocoScript, and eventually following LocoScript Pro to the PC.

I thought I'd finished with PCW programming after version 4.50 of AnsibleIndex, the one that handled the subtly changed document format of LocoScript 4. However the temptation keeps returning and any little thing can set it off. For example, a copy of the British Amstrad PCW Club's magazine *The Disc Drive* came my way this year and I noticed a piece by one Rod Shinkfield on something doubtless known to our more learned readers, but which I'd never heard about. CP/M's secret Limbo group where all the deleted files go.

When writing AnsibleIndex I'd naturally had to tackle access to disc groups 0 to 7. CP/M nominally has I6, numbered 0

to 15; Loco uses the second eight as its own Limbo groups. Turbo offers a neat facility for including "in-line assembler" - machine code instructions - so you can write a machine coded BDOS call to select any normal group through CP/M's "Set User" function.

The occult CP/M Limbo, weirdly, is group 249 (F9 in hexadecimal). You can get to any of groups 0 to 15 with the CP/M command USER, but both USER 249 and USER F9 give error messages. *The Disc Drive* revealed an unlikely access method using POKE commands in BASIC to tweak the PCW's memory, sticking the byte value 229 into each of the addresses 66480, 64432, 64348 and 64040.

This was ingenious, but a bit cumbersome - loading up BASIC and all - and I thought it would be much more fun to pervert the PCW memory with a little Turbo Pascal Routine. Turbo provides a built-in array called Mem which maps onto the program-area memory and can be read from or written to with an ordinary Pascal "assign" statement: Mem[66480]:=229;

Oops! That gives an error warning because the array index has to be a 16-bit Integer variable, whose allowed range is - 32,768 to 32,767. We have to tinker with the address numbers, subtracting 65,536 from each to get "negative" values which look fanciful but do in fact work:

Program Limbo:

begin

Mem[-1056]:=229;

Mem[-1104:=229;

Mem[-1188]:=229;

Mem[1496]:=229;

end.

This compiles in Turbo Pascal to give LIMBO.COM, which when run in CP/M does indeed magically transport you to the secret F9 group - as conveyed by the fact that the prompt changes from A> to F9A>. Rod Shinkfield suggests deleting a copy of PIP.COM so it'll be available in the Limbo group, ready for a command like PIP DELETED.DOC[GO]=DELETED.DOC

to copy a Limbo file back to group 0. A neat

idea. You escape to A> normality with USER 0.

Unfortunately most people don't own Turbo Pascal and even for those who do, the above still isn't the most elegant approach. This is because of the size of Turbo's run-time library, a collection of standard functions and procedures which means that even a program which literally does nothing at all will take up 8.5k or so of disc space and spend much longer than necessary loading.

However, most (all?) owners of the old-style PCWs have an assembler program supplied as one of the CP/M utilities. So obsessively I looked up my mouldering grimoires of assembly language and came up with a text file called LIMBO.ASM, containing the following:

POKE MACRO ADDR

LXI H,ADDR

MVI M,229

ENDM

POKE 64480

POKE 64432

POKE 64348

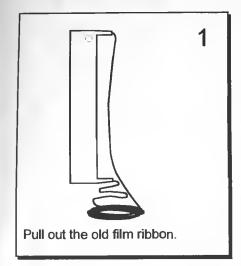
POKE 64040

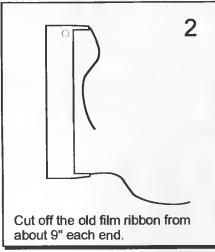
JMP 0

The POKE macro loads the index register with the supplied address ADDR and shoves 229 into that address. (I could equally well have written four pairs of LXI and MVI commands but I'm showing off). JMP 0 terminates the tiny program. I like the Turbo text editor for assembler programming. If you use LocoScript, the document needs to be converted to ASCII format. With MAC.COM and HEX.COM from the CP/M utilities disc, the command MAC LIMBO does the assembly, generating the intermediate file LIMBO.HEX - and HEXCOM LIMBO then produces LIMBO.COM.

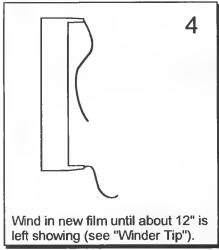
Once finished of course, driven by renewed obsessiveness, I found myself laboriously adding a BDOS "print string" command to ensure that LIMBO.COM displays the all-important message "Copyright (c) Ansible Information." Yes, software is most definitely a disease.

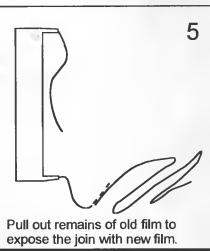
How to Replace the Film Ribbon in a Used PCW Dot Matrix Cassette

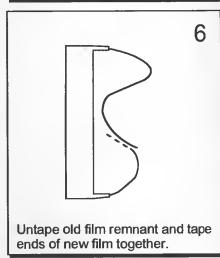


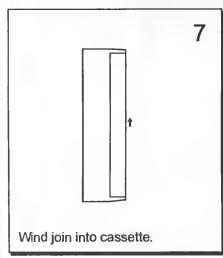


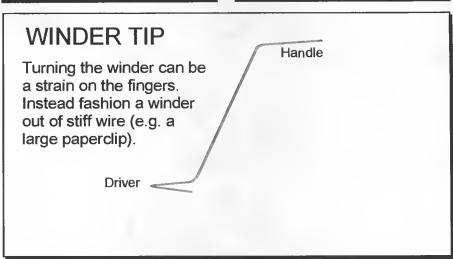












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